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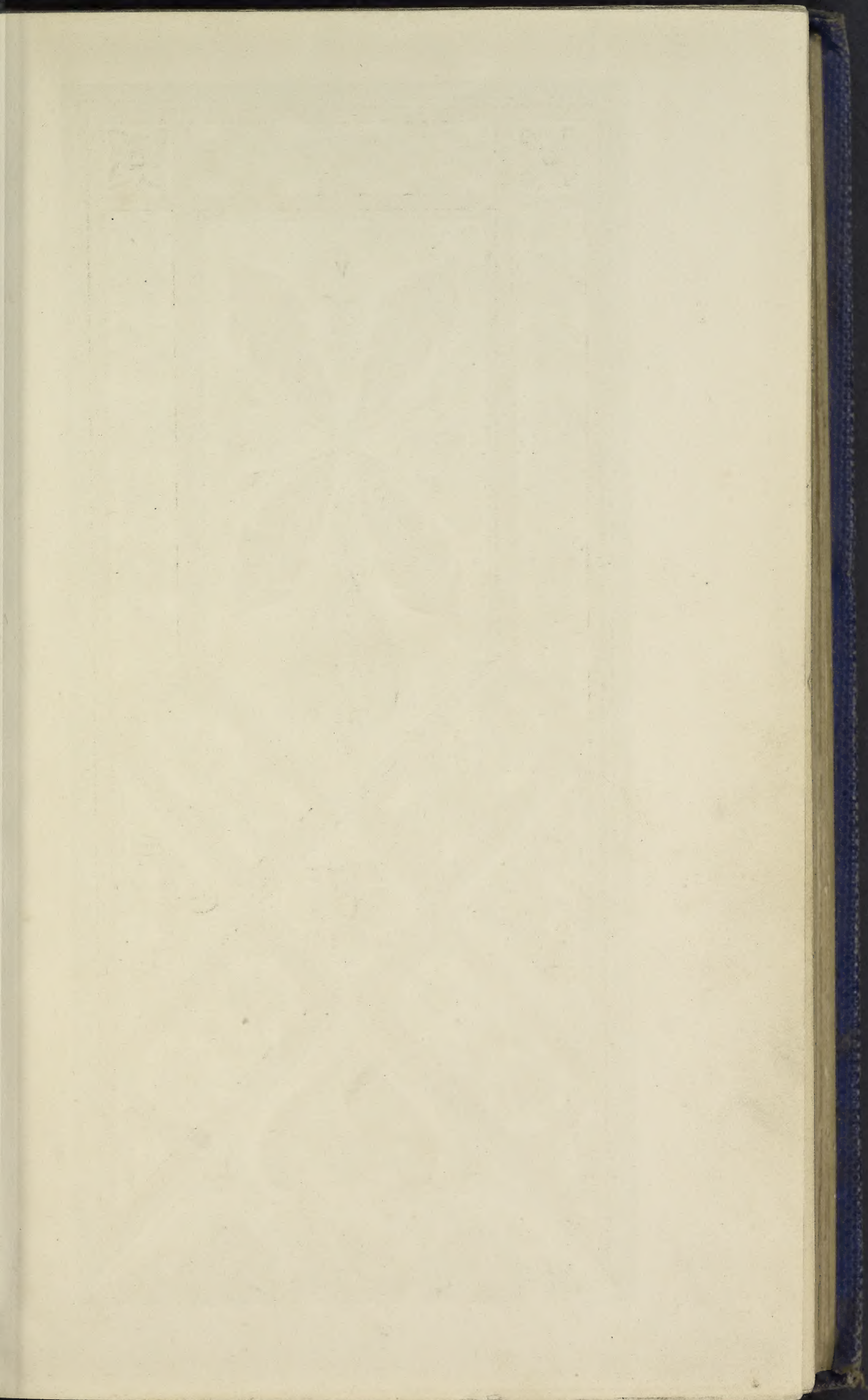
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ON COLOUR

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LONDON
PRINTED BY SPOTTISWOODE AND CO.
NEW-STREET SQUARE.





I.G.W. del.

DESIGN SHOWING HOW GREEN MAY BE USED TO LIGHT UP OTHER COLOURS.

London: John Murray, Albemarle Street, Nov. 1858.

(See Description of F

ON COLOUR

AND ON THE NECESSITY FOR

A GENERAL DIFFUSION OF TASTE AMONG ALL CLASSES.

WITH REMARKS ON LAYING OUT

DRESSED OR GEOMETRICAL GARDENS.

EXAMPLES OF GOOD AND BAD TASTE

ILLUSTRATED BY WOODCUTS AND COLOURED PLATES
IN CONTRAST.

BY

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LONDON

JOHN MURRAY, ALBEMARLE STREET.

1858

THE HISTORY OF THE

ROYAL SOCIETY OF LONDON

FROM ITS ORIGIN TO THE PRESENT

IN TWO VOLUMES

BY

J. H. P. ...

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PREFACE.

IN writing the accompanying remarks on colour and the necessity of encouraging taste, I have been actuated by a desire to see England rival, and if possible excel, other countries in all the various branches of æsthetic art. I have ventured to point out what appear to me to be certain errors and misconceptions, into which we have fallen or are liable to fall; and I have endeavoured to show how important it is that all classes of the community should appreciate the beautiful, and encourage the production of good works. Without this we may vainly hope that taste will take permanent root in the country, or that the studies now so laudably encouraged by some valuable institutions will produce any general and lasting benefit. If I appear to censure, it is only from a regret that errors should be repeated without correction; and my remarks are not made with a view to find fault but to show why we have sometimes failed to produce a work deserving of praise, and to point out what should be avoided; with the sincere wish that we may deserve the praise, instead of the censure, of those who now condemn us for deficiency of taste.

There are some who, like the Italians, are privileged, by their own superiority in this respect, to condemn us for

our deficiency; and the French are far more successful than ourselves in decorative design; but we may refuse to others the same privilege, and though the Germans have made considerable advances in various branches of art, we cannot concede to them the superiority they assume; and in point of colour their example* would be rather injurious than beneficial to decorative taste. I do not however intend by this to detract from the great merit they deserve of having laboured assiduously to study and advance art in its highest, as well as in its inferior, branches; this I acknowledge with great respect; and I gladly admit the credit due to them for having called attention to the works of the early masters of Italy, which had ceased to be regarded with proper interest until brought by them into general notice. I have been particular in censuring the common error of introducing great quantities of green into coloured ornamentation; and have shown that though green may *sometimes* be allowable in large masses, and when of a *glaucous* hue may be used as a ground for other colours, its employment in large proportions in combination with them is incompatible with their harmonious arrangement. It abounds when people become artificial. But in those periods when taste in colour was pure, the primaries were always preferred; and in confirmation of these remarks I may observe that the old custom is also observable in heraldry, where the early coats have the primary colours (with gold and silver), and where green is a sign of no great age. The same change from the natural and pure taste of man at an early period (when it was unbiassed by conven-

* They appear also to differ very much from their early masters in the appreciation and use of rich colours.

tional or theoretic notions) is shown in the *recent* coloured designs of the North American Indians; who for the old simple patterns, and the use of primary colours, have substituted an imitation of real flowers and the abundant introduction of green, in order to suit the artificial requirements of European purchasers.

I could have wished that the *coloured* specimens I had made of the various combinations mentioned in Sections XVI. and XVII. of Part I. could have been introduced, as well as of those mentioned in Sections XVIII. and XIX., and of the coloured papers in Section XXI.; but this has been found impossible from their number, and the expense of printing so many colours, hues, and tones. Any one however may easily make experiments on the particular effect produced by them, from the names of the colours I have indicated.

I have had much pleasure in offering my meed of praise to our institutions for the instruction of students in decorative art; and the efforts now making for the general diffusion of taste cannot be too highly commended. Excellent opportunities are also given, by the exhibition of the drawings of competitors in architectural, monumental, and other designs, of showing the talent of the designers, and of accustoming the public to the habit of forming some opinion on the merits of each; and these exhibitions give a far fairer estimate of the talents of the candidates than the usual "competitive examinations" in various branches of learning; which, useful as they are, often lead to a questionable conclusion respecting the real talent and sound knowledge of a successful competitor.

If I have sometimes repeated the same remarks I offer this

excuse, that it was from a desire of calling attention to particular points which appeared to me of the greatest importance; and as my object is to suggest what I believe to be of use, I hope to be pardoned whenever I have expressed an opinion differing from the conclusions, or the practice, of others. I can respect them while I differ from them; and as my wish is to direct inquiry towards certain questions most worthy of consideration, I shall be happy if others will point out any erroneous judgment I may have formed on the subject; and I therefore conclude with the well-known words of the poet—

“Si quid novisti rectius istis,
Candidus imperti; si non, his utere mecum.”

ERRATA AND ADDENDA.

PAGE 18, six lines from the bottom of the page, after the word "admissible," add, "and where copies of natural objects should seldom be introduced."

Page 80, line 19, on the words "three purples," add this note:—

* "The purple of Tyre was extracted from the *Murex* and the *Buccinum*; but the *Helix Ianthina* (still so common on that coast), is the shell from which they probably *first* obtained it, as it proclaims the secret of its possessing the purple dye by the colour it throws out, like the *Sepia*, on being approached. This accords with the story of its *accidental discovery* by the dog of Hercules, which would not have been made from the *Murex* or the *Buccinum*; and if these gave a dye superior to that of the *Helix Ianthina*, their properties were found out by *subsequent experiment*, their colour not being at first purple. Indeed they only produced a good dye by being used together, and by a long process; while that of the *Helix Ianthina* is at once a pure and true purple. (See my note, and the woodcut in Herodotus, book iii. ch. 20, n. 2, Tr. Rawlinson.) The Phœnicians imported purple from Hermione in Argolis, Cytherea, &c.; and Ezekiel, xxvii. 7, says it came to Tyre 'from the Isles of Elishah' (Hellas, or Greece); it has therefore been thought that this was different from the *original* purple of Phœnicia, which accords with the above statement."

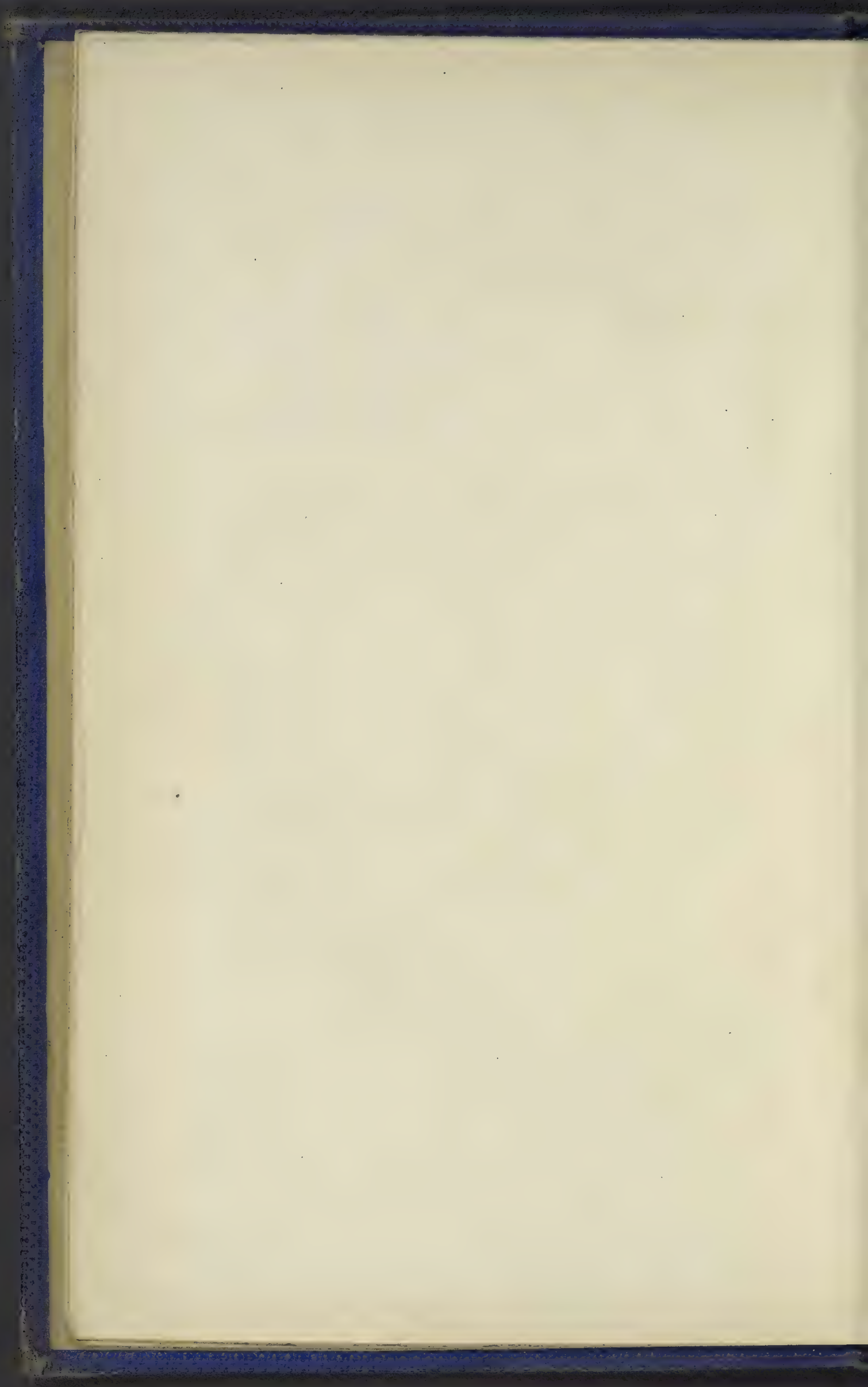
Page 242, line 5, on "Flaxman," add this note:—

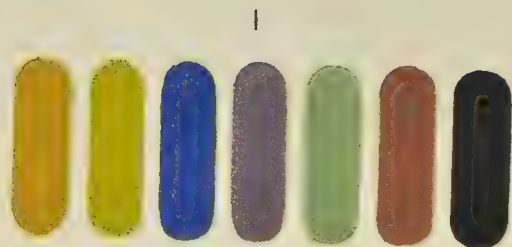
* "Like the Greeks, he felt the impropriety of displaying grief in sculpture; and though the Greeks in writing used a stronger expression than our 'indulged in grief' (as in the 'τεταρπώμεσθα γόοιο' of Homer, Il. ψ. 10), they abstained from representing the suffering countenance in sculpture and painting; as we even see in a fresco representing the sacrifice of Iphigenia, given in Gell's Pompeii"

Page 266, line 2, for "finished houses," read "furnished houses."

Page 302, line 19, on "Homeric age," add this note:—

* "Cf. Il. ψ. 743, the Sidonian *crater* offered as a prize by Achilles, at the funeral games of Patroclus."

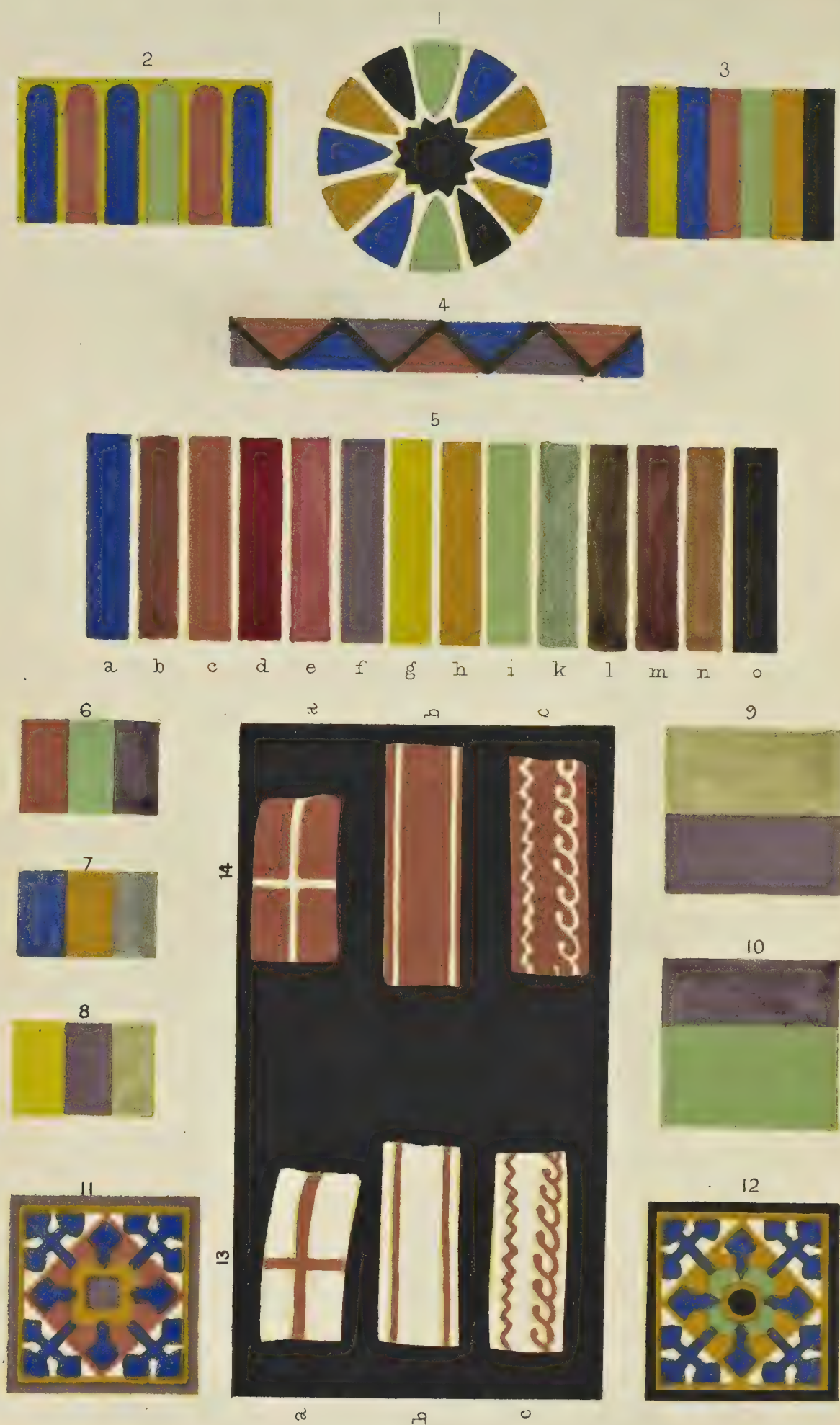




I.G.W. del.

SEVEN COLOURS GIVEN TO BE ARRANGED IN A PATTERN.

London. John Murray, Albemarle Street, Nov 1858.



EFFECTS OF COLOURS. FIG. 5. THE PRINCIPAL COLOURS USED, 6, 7, 8, 9, 10, ARE DISCORDANT.

DESCRIPTION OF PLATES AND WOODCUTS.

PART I.

PLATE I. is intended to show how blue, red (or scarlet), white, black, green, and gold may be combined in a mosaic pattern. The idea of its general configuration is taken from one of the borders which separate the fresco paintings in Giotto's Chapel, at Padua, and it has been varied to suit the arrangement of the colours. The quantity and disposition of the green will serve to show how small a proportion of that colour is required, and how it brightens up a design. (*See* p. 63.) The gold too illustrates what I have said in pp. 107, 117, of its being employed in greater quantity than orange or yellow. As an instance of the black lines separating the chief sections of the design, mentioned in p. 108, *see* Blue, D 2, p. 135.

PLATE II. shows how the seven colours, orange, yellow, blue, purple, green, red (or scarlet), and black, given promiscuously in *fig.* 1, may be arranged in harmonious order, as in *fig.* 2. It is one of many different arrangements which may be made of those colours; in some of which more or less red, or blue, or others, may be introduced, according to the required effect. For though, as a general rule, the blue should be in greater quantity than red, it is possible to have perfectly harmonious combinations even where these proportions are disregarded. There are cases, for instance, when more red may be used than blue; and sometimes the red may be confined to a very minute quantity.

In *fig.* 2, it will be observed how much better blue and orange are suited to each other than blue and yellow, which are rather harsh. Here too the power of a small quantity of green is very apparent. (*See* pp. 63, 146, 166.) The design is not very well suited to the arrangement of colours; but it may serve as an instance of colour in a geometrical figure.

PLATE III. *Figs.* 1 and 12 give different arrangements and quantities of the same colours, blue, orange, black, white, and green. They are both harmonious. (*See* Blue, C 9, p. 134.)

PLATE III. — (*continued.*)

Fig. 2 is the Egyptian arrangement of blue, scarlet, and green, on a yellow ground, or separated by yellow fillets. (*See* p. 95, and Blue, B 2, p. 132.)

Fig. 3 is one arrangement of the seven colours, purple, yellow, blue, scarlet, green, orange, and black, in simple succession. Another, and perhaps a better, arrangement would be black, blue, yellow, scarlet, purple, orange, and green; or purple, orange, green, scarlet, blue, yellow, and black. (*See* Blue, E 1 a, p. 135.)

In *fig. 4* are the colours, but not the pattern, of the Jewish ephod. (*See* p. 17, 131; and Blue, B 7, p. 183.)

In *fig. 5* are specimens of the hues of the colours mentioned in this work, as near as they can be obtained in copies made partly by chromo-lithography, and partly by hand colouring: viz. *a.* blue, *b.* red, *c.* scarlet, *d.* crimson, *e.* cerise, *f.* purple, *g.* yellow, *h.* orange, *i.* green, *k.* tea-green, *l.* brown, *m.* horsechesnut, *n.* chesnut, *o.* black.

Figs. 6, 7, 8, 9, and 10, illustrate what I have said in pp. 92, 93, and are specimens of discordant combinations: viz. *fig. 6.* scarlet, green, and russet (red would be still worse than scarlet); *7.* blue, orange, and olive; *8.* yellow, purple, and citrine; *9.* purple and citrine; and *10.* green and russet.

In *fig. 11* is an instance of the mode of preventing blue and red (or scarlet) looking purple; by the intervention of the white and orange. There are many methods of doing this. Here the combination is blue, white, scarlet, orange, and purple, which is harmonious; though in this design the orange *next* the scarlet, does not afford a sufficient contrast. (*See* Blue, C 2, p. 134.)

Figs. 13, 14, illustrate the difference of little red on a white ground, and little white on a red ground: showing the great superiority of the former. (*See* p. 149; description of Plate iv. *fig. 4*; and Blue, B 6, p. 133.)

PLATE IV. *fig. 1*, is an instance of the union of blue, red (or scarlet), and yellow, the latter separating the other two to prevent their having a purple effect in combination. (*See* pp. 9, 94, 95; and Blue, A 1, p. 131.)

In *fig. 2* are the five colours, blue, scarlet, yellow, purple, and black (*see* Blue, C 5, p. 134.) The *proportion* of the purple and the black, to the yellow and to the other two colours, is by no means the one generally required; and it might be altered considerably in a different design. The arrangement is nevertheless quite harmonious; and it may serve as an instance of the great range allowed to the proportions of different colours, mentioned in pp. 147, 148, 251. (*See* Blue, C 5, p. 134.)

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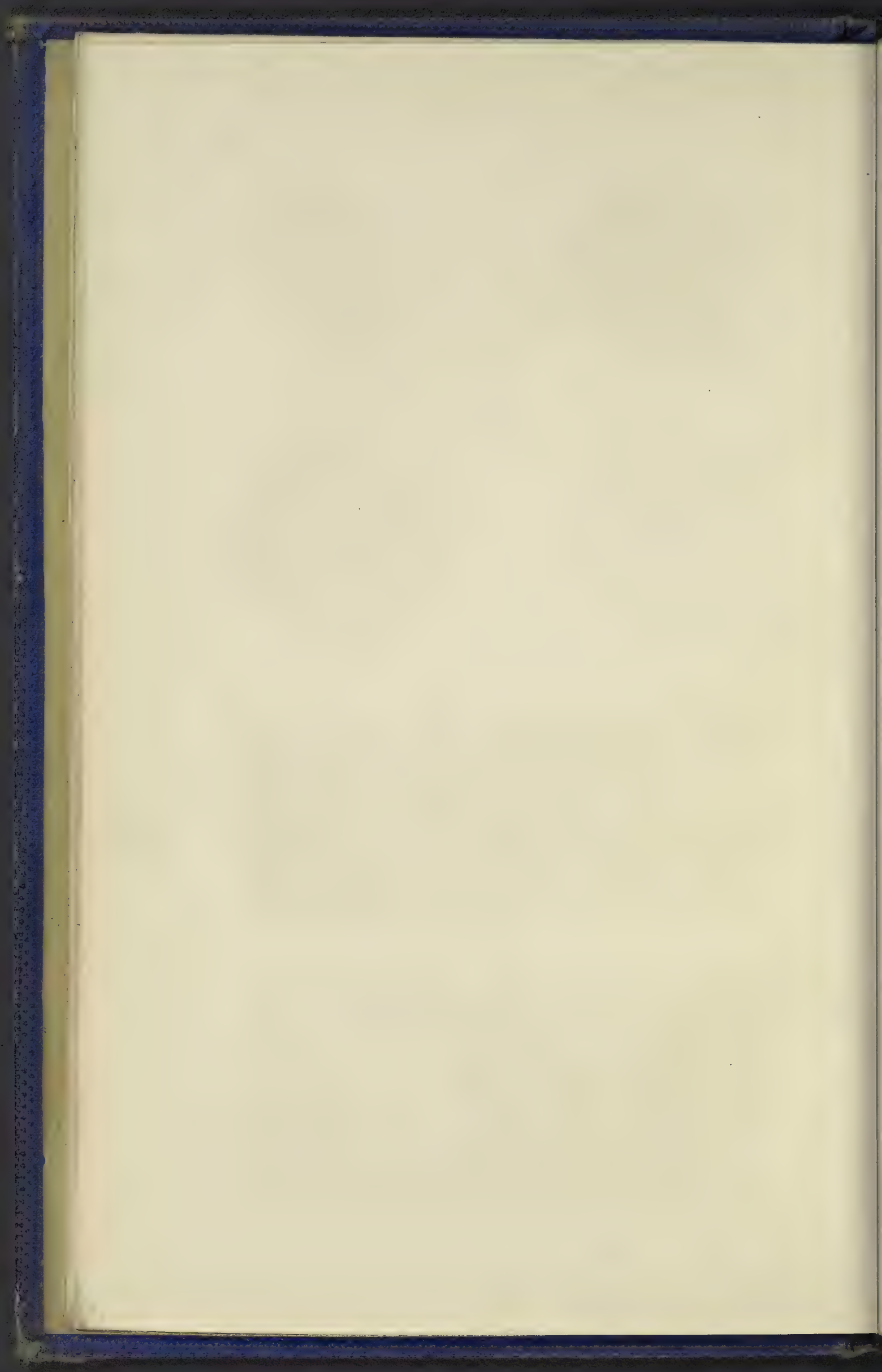
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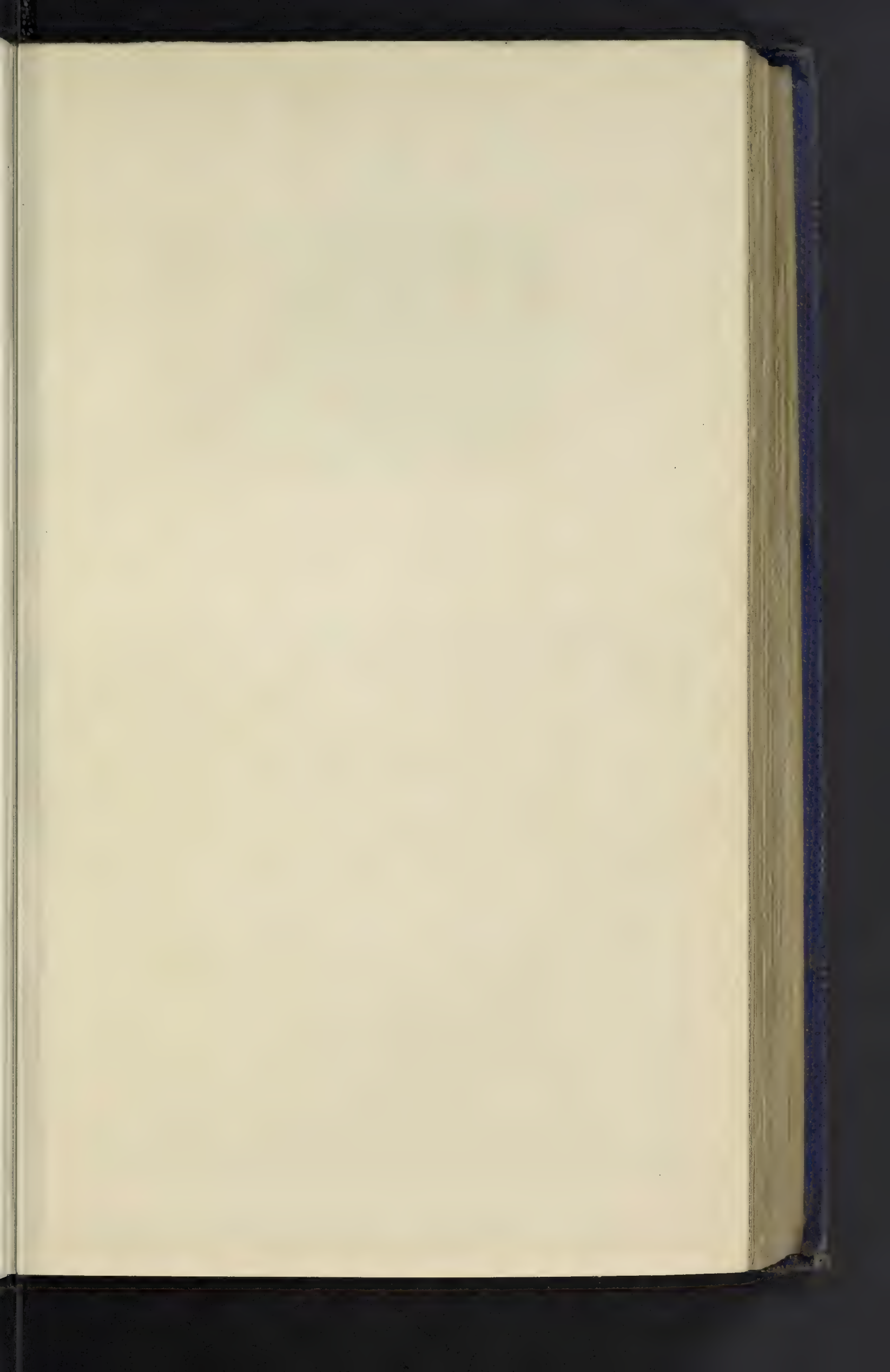


COMBINATIONS OF COLOURS

G.W del.

London: John Murray, Albemarle Street. Nov. 1858.







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J.G.W. del.

EFFECT OF PATTERNS WHEN NOT QUITE REGULAR.

London: John Murray, Albemarle Street, Nov. 1858.

PLATE IV.—(continued.)

Fig. 3 shows how little green is required to brighten up a design, as I have already shown in the description of Plate i. (See p. 63, and Blue, B 2, p. 132.)

Fig. 4 is an instance of white on a red ground, generally so heavy (see p. 149, and description of Plate III. *figs.* 13, 14), which is made perfectly agreeable by the addition of blue and yellow in this design. (See Blue, B 6, p. 133.)

Fig. 5 is another instance of the manner in which red and blue may be prevented from appearing purple by the intervention of yellow and white, and how blue should be separated from yellow in a pattern (as in a carpet) by a black line. (See the combination in Blue, C 7, p. 134.)

Fig. 6 is given as an instance of the propriety of making the patterns rather irregular than exactly symmetrical and of equal size, particularly in a carpet. The advantage of this is more obvious in a large expanse, and the inaccuracies being there smaller in proportion than in the figure here given, they do not appear so evidently to the eye, though they have the desirable effect of preventing that monotony which fatigues it in an exactly symmetrical design. A better instance of this is given in Plate v. *fig.* 2. The colours are blue, scarlet, orange, black, white, yellow, and purple.* (See Blue, E 8, p. 136.)

PLATE V. *fig.* 1 is a carpet border of blue, scarlet, green, yellow, black and white. (See Blue, D 1, p. 135.) Though the combination is harmonious, the arrangement of the red next to the green is not such as would be generally recommended; nor should yellow border the red; but those defects are here remedied by the distribution and proportion of the other colours; and the whole is well balanced and agreeable.

Fig. 2 is intended to show how much more important is the effect of the colour in a carpet than that of the pattern, as I have observed in p. 20; and how much more agreeable is that irregularity in certain parts of the pattern met with in Eastern carpets, than the formal and symmetrical exactness thought so necessary in our own. As I have said in the description of Plate iv. *fig.* 6, the irregularities are made more apparent in this small design than they would be in the large expanse of a carpet, where they would give the required variety without being actually apparent to the eye; but

* By mistake the yellows as well as the orange, have all been printed of the latter colour in the plate, instead of being *alternately* so.

small as it may be, the effect of the central portion will serve to show how much better a varied pattern is suited to a carpet than one of more geometrical and formal construction. The proportion of the border to the central part is of course disregarded. It is intended for a centre of greater dimensions, where the same centre might be extended, or repeated, or subjected to various modifications. (*See Blue, E 2, p. 135.*)

PART II.

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PLATE VI. *Fig. 1 a, b, c, d, e*, balustrades of different patterns, most simple in their construction.

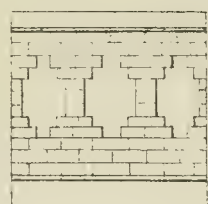
Fig. 2. Patterns of box, with gravel walks between them.

PLATE VII. *Fig. 1*, a geometrical garden with terrace-walk above, within a stone balustrade, close to which is a border with mixed flowers of various colours. The central part is some feet lower than the terrace-walk, from which two flights of stone steps lead to its walks. In its centre is a vase on a pedestal, or a small fountain. The walks are of gravel, and the beds are edged with box. The sloping sides, *EE*, are here laid out in a zigzag pattern; but this may be varied by other patterns, more tasteful and elaborate than the zigzag, or they may be planted with mixed flowers of various colours, provided they are low. At each corner is an Irish yew.

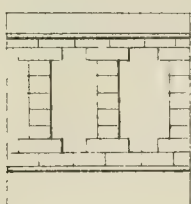
Fig. 2 contains various patterns. The gardens need not be confined to the space here given; and this figure is rather intended to offer a *variety of patterns*, than the arrangement of a garden, which should have other patterns at the side, between it and the balustrade which surrounds it, as on the left of Plate VIII. at *E*. In the colour of these Plates, allowance must be made for the false effect caused by the quantity of yellow in the garden walks, which will not appear in the garden itself.

PLATE VIII. gives an arrangement of beds in a geometrical garden of moderate size, which may be extended according to the size of the garden.

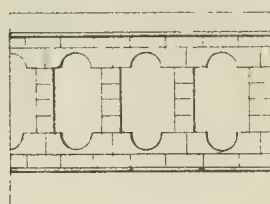
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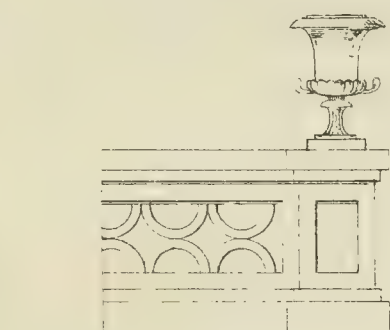
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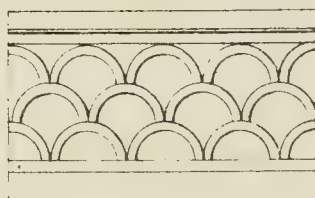
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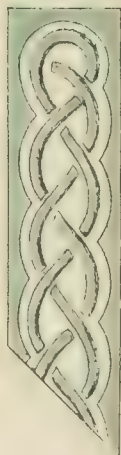


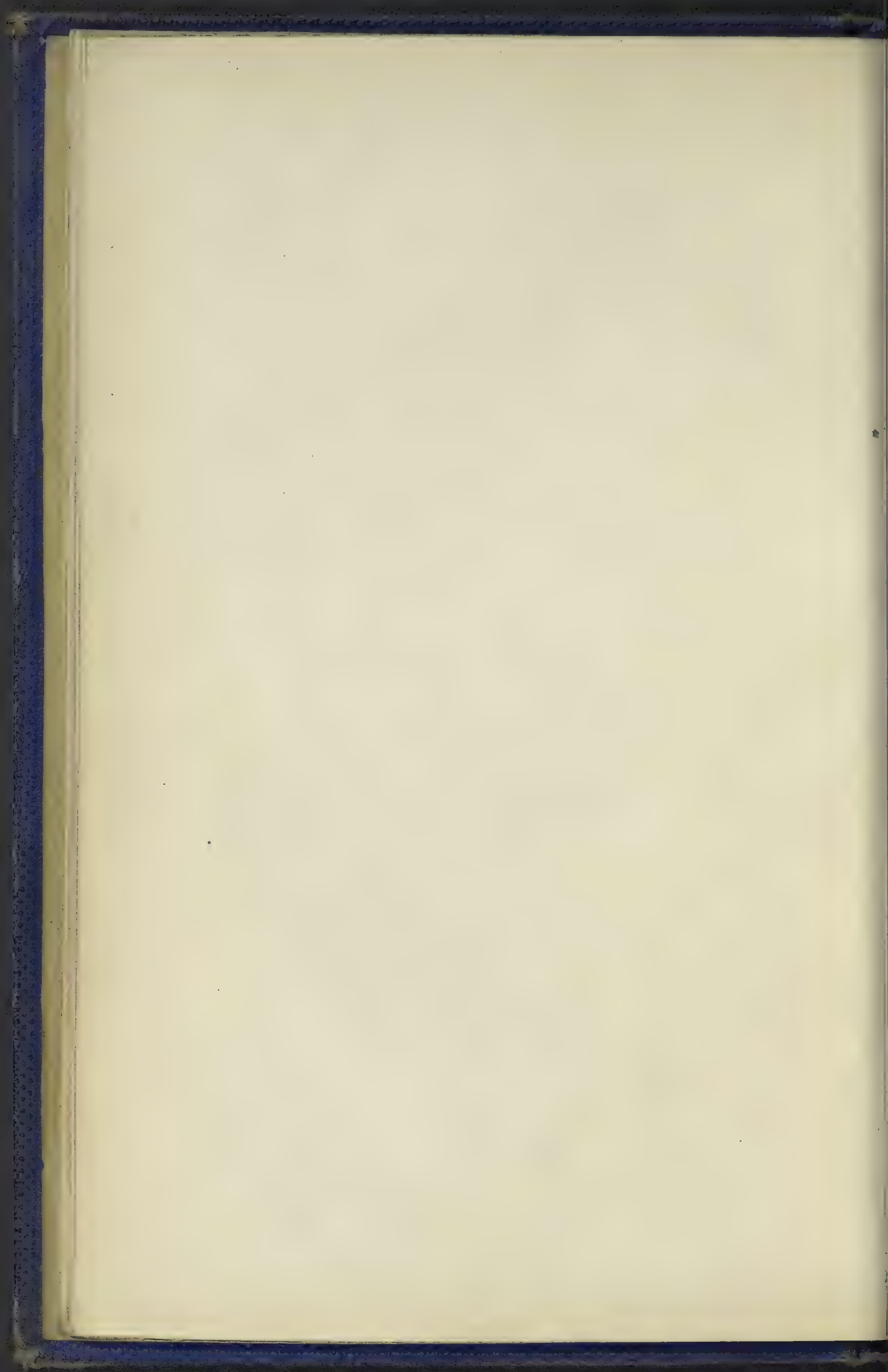
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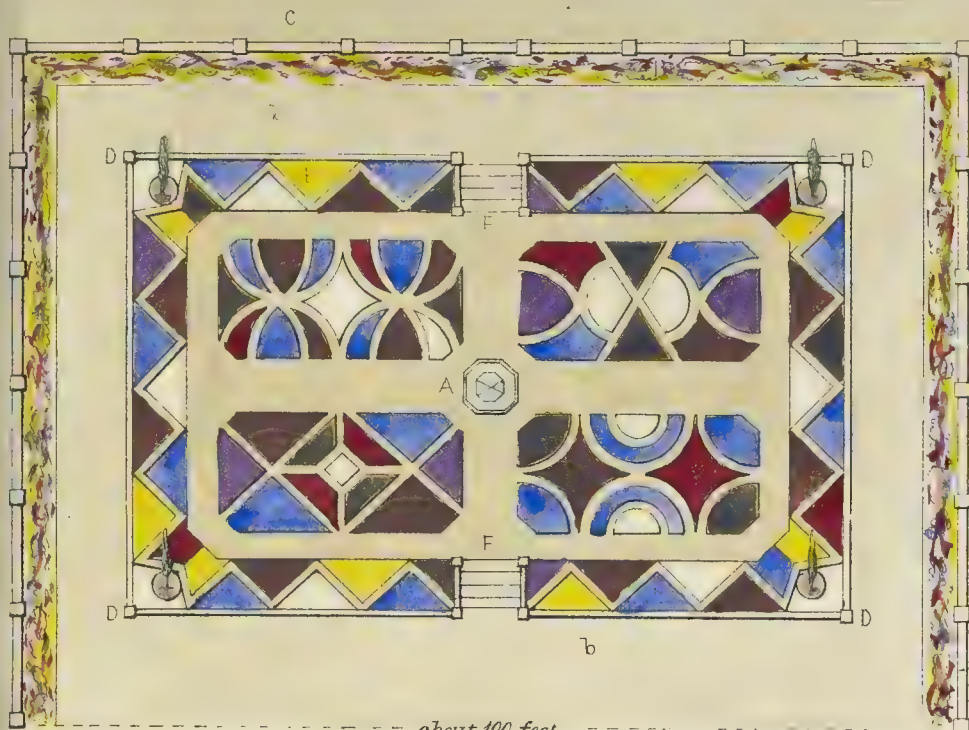


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Fig. 2.

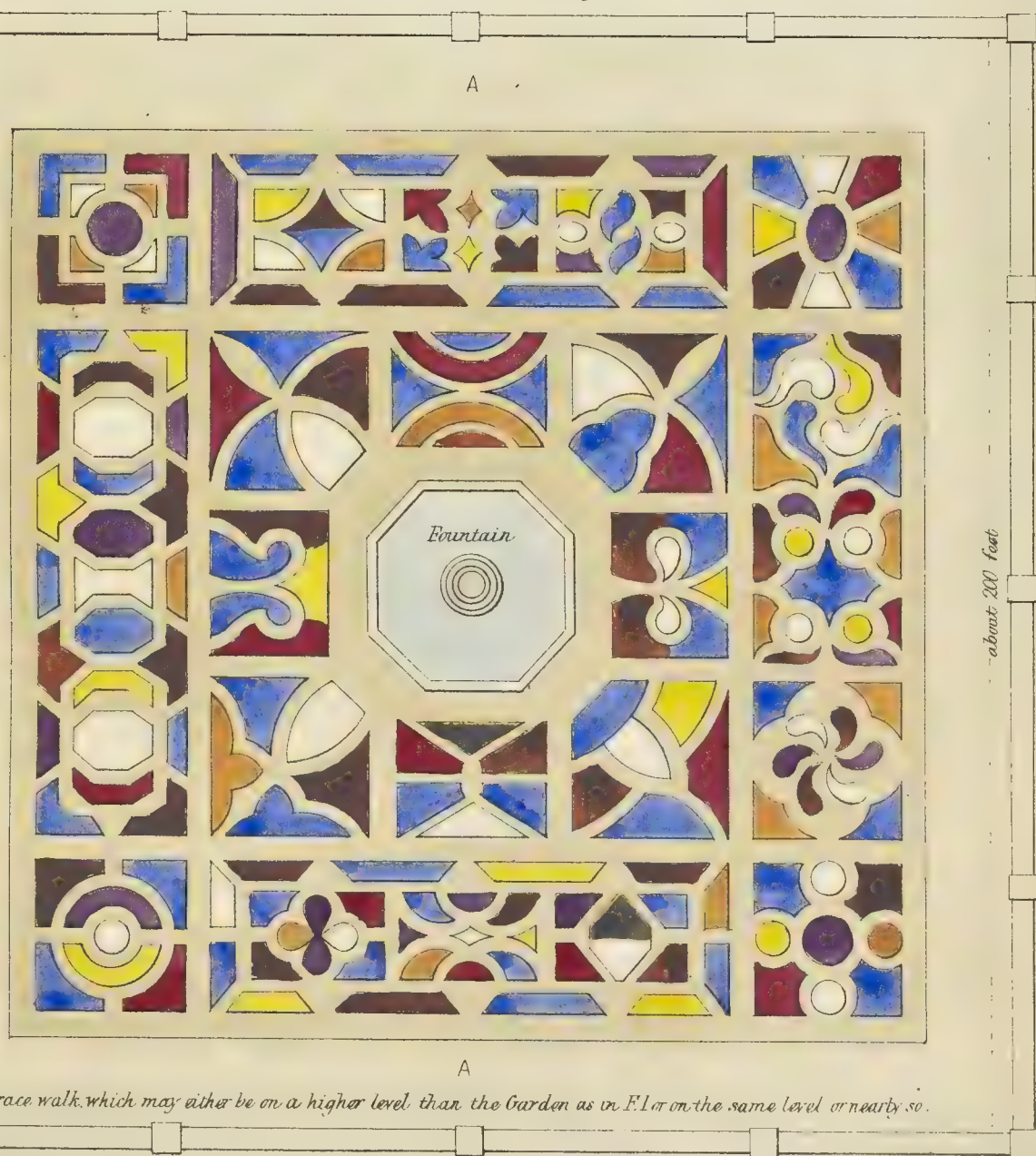




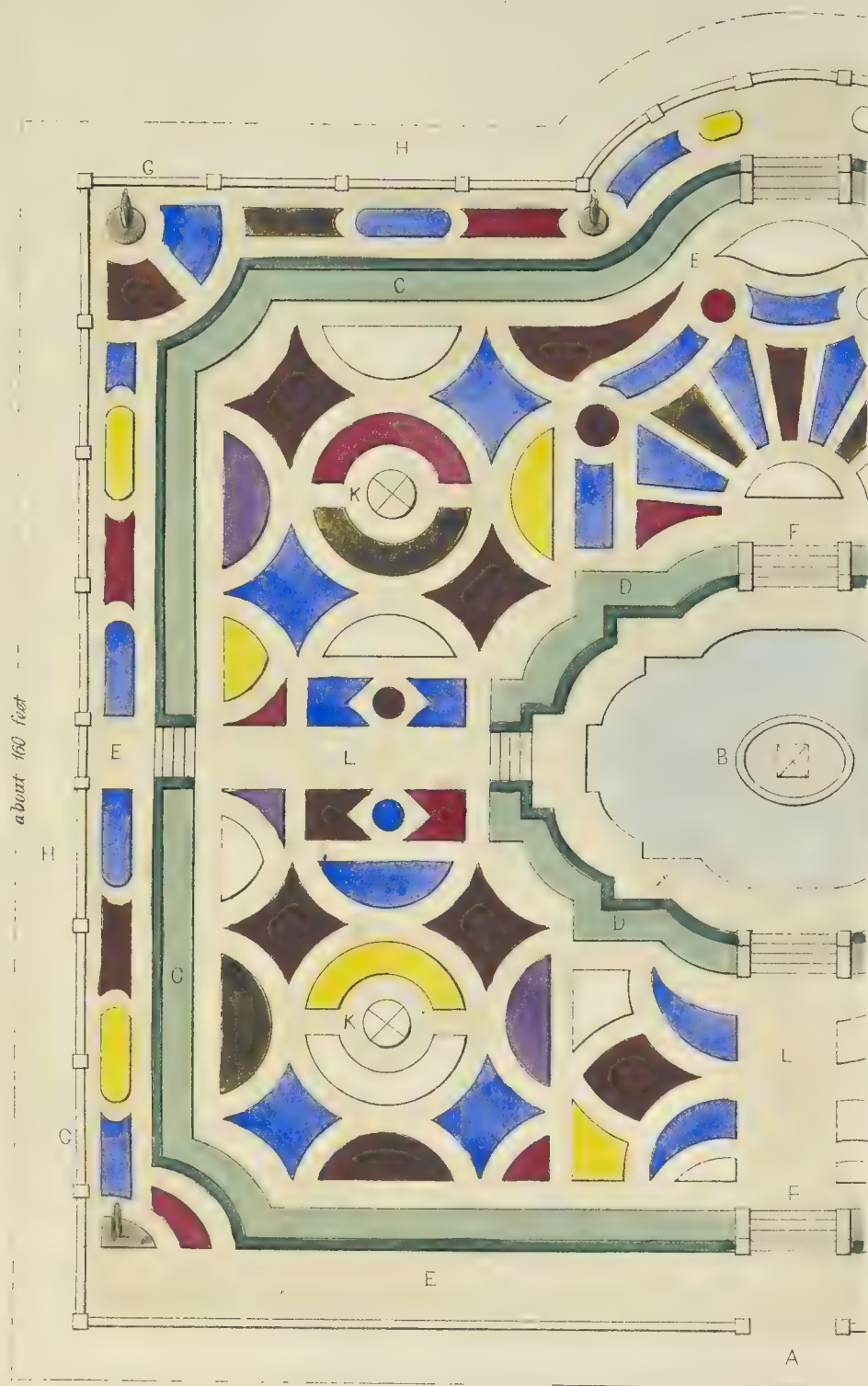


- A Fountain, or a Vase on Pedestal, with steps
 B B Border with various flowers.
 C C Stone balustrade & terrace having a vase on each pillar, with a sunk fence or fosse below.
 D D A Vase at each corner of the sloping beds.
 E E Round beds with Irish Yew.
 F F Stone steps leading down from the terrace walk to the lower level of the garden.
 b b Upper terrace walk
 The centre part is lower than the upper terrace walk b b & to it the steps F F lead.

Fig. 2.

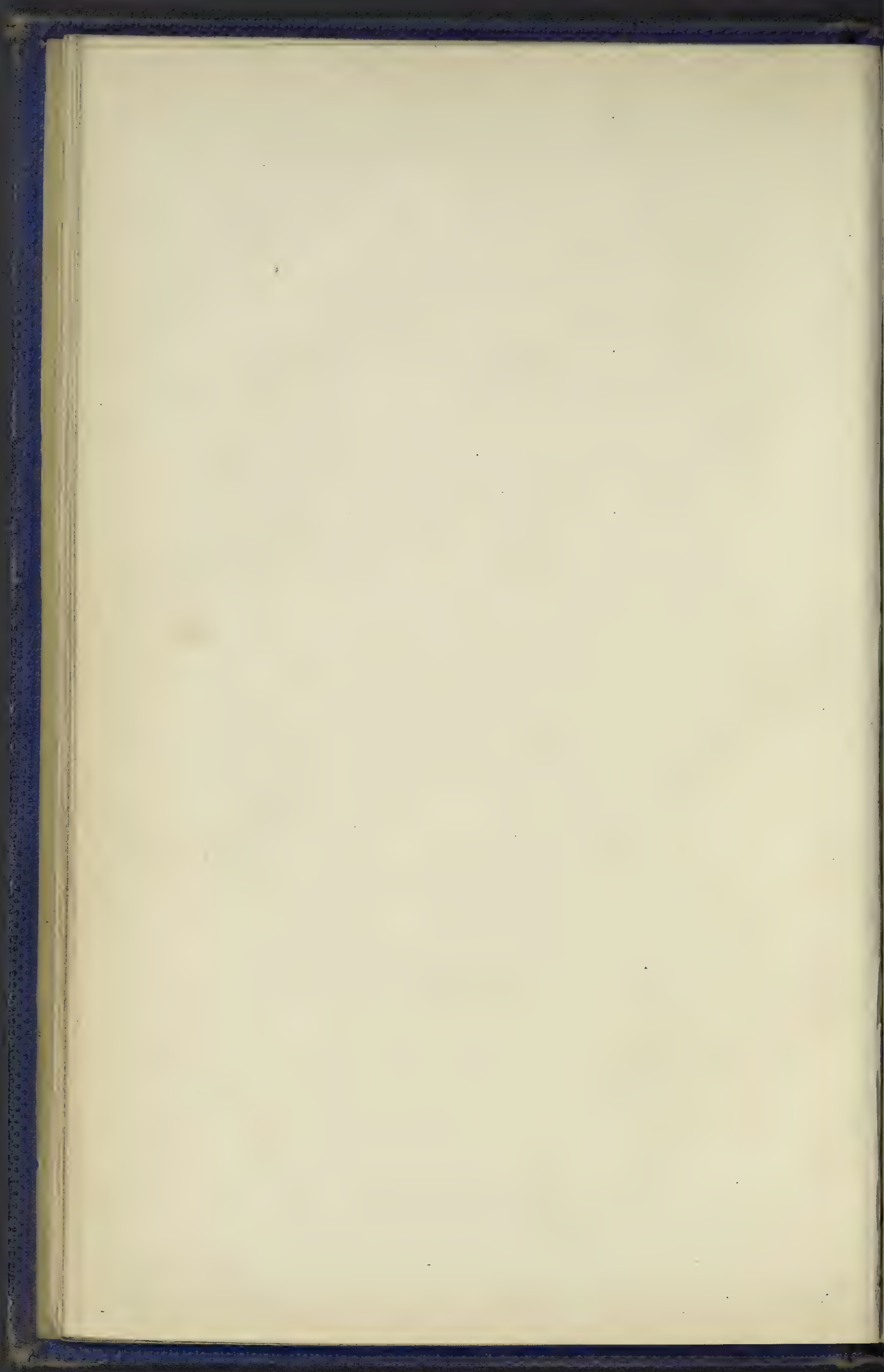


A A Terrace walk, which may either be on a higher level than the Garden as in F. 1 or on the same level or nearly so.



- | | |
|---|---|
| A Terrace between the house & the garden. | FF Stone Steps |
| B Fountain | C Stone balustrade or the terrace wall. |
| C C Slopes of turf | HH Sunk fence or fosse |
| D Slope of turf round the fountain or planted with stonecrop & other low creeping plants, &c. | KK Large Vases on Pedestals |
| E E Gravel walks. | L Beds with cypress or fresh Yew |
| | LL Lower gravel walks |

West & Co. Lith.



ON COLOUR

AND ON

THE NECESSITY OF TASTE BEING GENERAL.

PART I.

ON COLOUR.

§ 1. It has been generally remarked by foreigners, and as generally admitted by ourselves, that the English are very indifferent to the effect of colour for decorative or ornamental purposes. We take little pleasure in studying the harmonious arrangement of colours, either in dress, furniture, or architecture; and when the attempt is made to compose coloured designs we frequently tolerate and even admire discordant or anomalous combinations. Indeed, we sometimes maintain that bright colours not only fail to please, but are even disagreeable; and advocate the use of compound hues, neutral tints, greys, and other so-called "quiet colours," in preference to any combinations of the primaries, red, blue, and yellow, and other colours of the prism. These we often pronounce to be "gaudy." But bright colours are not necessarily gaudy. It is when bright colours are put together without due regard to their suitableness to each other, their relative quantities, or the arrangement they require, that they appear gaudy and glaring. Gaudy colours we may, in

fact, define to be the union of bright hues without harmony; and no wonder the effect should be disagreeable. But this is the result of want of skill in their combination; the fault is not in the colours, but in the arrangement. Any face which is deformed, however perfect the individual features, would fail to please; while the same features, properly put together, would make it beautiful; and certain musical notes, incorrectly combined, would produce a discord, though the same properly adjusted would produce harmony. So too with colours; and we find that some, even of those who have always been indifferent to colour, or averse to the use of bright hues, are ready to acknowledge the beauty of certain harmonious combinations, and are surprised at the effect, which they expected to be gaudy and offensive. There are, however, some who are as completely insensible to the effect of such harmony as they are to that of musical sounds; others, again, have a perverted or false taste; and others are unable to distinguish colours, being affected by what is called "colour-blindness." To these three it is useless to appeal; as it would be to expect a person incapable of discovering discordant notes to have an appreciation of harmony in music. But for those who are *capable* of understanding the harmony of colour, and who only require proper instruction, it is essential that correct examples should be provided, which should be constantly set before them, as the perceptive faculties may be improved or misled by the frequent contemplation of perfect or imperfect models. It is therefore of great importance that those who give instruction in the harmony of colours should be thoroughly imbued with the true feeling for it, and should possess that natural perception which, though it may be improved, cannot be obtained by mere study.

It is not by forming a theory on some fanciful basis, that a *perception* of the harmony of colours is to be acquired. Like

a correct ear for music, it is a natural gift. Theory will not form it, as theory will not enable any one to detect a false note. The power depends on the perceptive faculty; and unless any one possess this, he will vainly attempt to lay down rules for the guidance of others. Yet we find that some have based their notions of the proper arrangement of colour *solely* on theory; and others, who might have had a proper feeling for it through their own perceptive faculty, or from the study of good models, have occasionally allowed themselves to be led astray by some plausible assertions, founded upon a fanciful basis, and supported by false *reasoning*.

The same hasty attempts have been made to lay down rules for colour as for form and proportion. These are all dependent on the perceptive faculties; and it is certainly not by *beginning with a theory* that any of the three can be taught. The Italians have a remarkable perception of true proportion, but they did not learn it from a theory, nor do they teach it by rules; and how would it be possible to define every variety of form and make them all amenable to rules? When we hear a false note, it is not to a theory that we have recourse in order to prove it; and we can no more help seeing a discord (if we have a true *perception* of colour) than we can help being struck by a discord in music. If the ear is correct, it will detect the latter; if the eye is so, it will perceive the former. Neither the eye nor the ear can do otherwise. Theory will not supply the place of those organs; and it would be as hopeless to attempt to teach the ear to discriminate between sounds, or the nose to distinguish scents, by rule, as to substitute theory for the perceptive faculty in judging of colour. Mr. Ruskin, in his "Elements of Drawing" (p. 248), observes that composition is unteachable, and "no one can invent by rule, though there are some simple laws of arrangement," for which he gives some very

useful instructions. So too the agreement and disagreement of particular colours must depend on the power of perceiving them; and, as in judging of form and proportion, the eye can only be *assisted* by certain facts which are the result of observation, but which can never be obtained by mere theory. It is hopeless to begin by teaching this through the ear. The harmony of colour must first be learnt through the eye; and those who teach it must possess the faculty of perceiving it; but to begin with a theory is writing the grammar of a language before the language is understood. Nor is it, *at any time*, possible to reduce it to rules, like a language. And yet instances of this precipitation are constantly occurring; and instead of *guiding the eye*, which is to be the judge in such matters, there is an attempt to substitute the memory for the perception, and to charge it with rules founded upon some plausible and imaginary data. Because such and such colours stand in a certain relationship to others, or are compounded in a particular manner, it is affirmed that they must *therefore* accord or disagree with some other one; and the question asked is not whether they *do* or *do not* agree, but whether they *ought* or *ought not* to agree.

2. These theories, and the predetermination of what colours *should* do, put me in mind of a story told me by a German of my acquaintance, who, on his first arrival in London, endeavoured to account for all he saw by explanations formed in his mind before he had time to obtain experience, and who thought, as his countrymen too often do, that everything must be subjected to speculation and made amenable to theory.

Happening to go into Portman Square, he saw, conspicuous on the façade of one of the houses, a richly painted hatchment. He made a note of it; while he wondered what it meant. But on going into Grosvenor and some other squares, where he also saw other hatchments, he at once formed his theory; and when he entered this among his memoranda:

“Each square in London is marked by its arms, set up in a conspicuous position on one of the houses,” he felt sure he had ascertained the *rule* that guided us in one of our English customs.

3. Some of those who have formed theories on colours have been equally hasty. Whatever might serve to confirm them has been eagerly laid hold of; and certain analogies between colour and sound have been brought forward to support some preconceived notion. Burnet very justly observes, that in the various theories respecting the harmony and effect of colours there are many points of coincidence, and much that has a foundation in truth and nature, but which when applied to the examination of the works of those who have excelled in colouring are inapplicable; and this remark applies with still greater force to the combination of colours for *decorative* purposes, where nature is not the guide, and where such positive contrasts are allowable, as would be harsh and intolerable in a picture.

4. Among the analogies of colour and sound which have been seized upon to maintain a theory is the discovery made by Newton while investigating the properties of light, “that the lengths of the spaces occupied in the spectrum by the seven primary colours exactly correspond to the lengths of chords that sound the seven notes in the diatonic scale of music.” But this was merely the determination of an accidental analogy. “Newton on this subject proceeded no further;” and Hutton has shown the absurdity of pretensions such as Father Castel put forth, of constructing a musical instrument that should present the analogous colours and sounds to the eye and ear. “And if,” he adds, “there be any analogy between colours and sounds, they differ in so many other points, that it need excite no wonder that his project should miscarry.”* Such an experiment cannot aid the eye *in*

* Hutton’s “Recreations,” vol. ii. part 4, prob. 55.

judging of colour. The fact is most interesting, but it has no bearing on the question, it is only to be used as a *simile*; and when practice has given us the means of understanding the whole subject, we may amuse ourselves with this or any other speculation on the analogy of colours and sound, without fear of being drawn thereby into hasty and erroneous conclusions.

5. Every one willingly admits the great utility of rules; but we must first make ourselves masters of the subject, and be contented to seek for facts to guide us in their formation. As I have already observed, it is useless to pretend to write a grammar before the language is understood; and languages were spoken long before grammarians laid down their rules. In like manner, poetic genius was never obtained by theory; the beauty of proportion and of form, and various harmonious effects, have been appreciated at all times; and the mark is hit by an arrow, or a ball, without any acquaintance with the curve of a parabola. Again, we hear a sharp sound more readily than a deep one, without having first to understand the nature of quick and slow vibrations; and we know whether the perfume of a flower is sweet without having to wait for a theory of scent. Experiments, such as looking at a colour through a particular medium with the right, and through a different one with the left, eye, or conjectures denying the existence of more than one primary colour, making yellow a "declining red and blue privation of light," are interesting as philosophical inquiries, but are quite irrespective of the effect of colours as they present themselves to the eye under ordinary circumstances, and have no more bearing upon the harmony and combination of various hues than they might have on judging of the beauty and effect of a painting; and to admit any conclusions from them respecting the concords, or the relationship of colours to each other, has only the effect of substituting theory for fact.

We have now to deal with facts and their results, not with reasons. The elements of ornament may be combined in various ways, and may be equally beautiful in many different combinations, without its being necessary to discover the laws or reasons for that agreement, or to impede our progress at the commencement by speculations which are quite as likely to lead into error as to assist our study. So again with colours: and though the three primaries, blue, red, and yellow, in certain proportions, constitute white light, all inquiries respecting the proper quantities required for it, and every appeal to philosophical experiments, in seeking the proper method of *ornamenting* with colour, are quite irrelevant; and the Arabs attained to the great perfection we admire in the Alhambra and elsewhere without theories. It was the practice which gave them their success; and we shall do well to imitate their example by beginning at the beginning; and when we have obtained the necessary experience it will be time to promulgate theories based on actual and sound observation. We want experience and facts, not conclusions derived from uncertain premises; and it too often happens, when speculations are allowed to interfere, that the judgment is warped, and practice is made to conform to preconceived notions as erroneous as they are arbitrary. We are too apt to substitute memory for observation, and to teach by rote rather than by conviction or the contemplation of good examples; and many prefer to lay down fanciful rules than to convince by facts.

6. To begin with theory is contrary to all inductive reasoning; which proceeds "from facts to laws, and from laws to causes;" and it is equally inconsistent to seek some difficult explanation while a simple one is within our reach. Yet this is of daily occurrence, and the obvious is overlooked in the search for some recondite reason.*

* Thus the learned are more pleased to derive the names *Pa* (or *Ba*)

It is of more importance for the proper arrangement of colours to ascertain which harmonise in juxtaposition than to occupy ourselves with abstruse questions respecting their properties, or the laws by which they *ought* to be regulated; which, though they may display great thought and scientific knowledge, are here of little practical use; and which, like the constitutions of certain wise professors, appear as plausible on paper as they are impossible in practice.

7. From facts and actual experience we may obtain something positive and useful; from theory nothing can be expected, so long as the subject itself is not thoroughly understood, except the most vague and contradictory conclusions. We have constant proofs of this. One lays down as an axiom, that as light is composed of the three primaries, those colours, when used in the proportion necessary to form white light, “neutralise” each other, and should *therefore* be so employed for decorative purposes. But if when so put together they really did *neutralise* each other, they would then be deprived of their real effect, and we should counteract the very object we had in view. To *ornament* with colour and *neutralise* the colour is a contradiction. But it is supposed to accord with a *theory*. Fortunately, however, the three primaries placed in juxtaposition do accord admirably without undergoing this metamorphosis; and it has been found necessary to employ artificial means to obtain any approach (and that too a very *imperfect* one) to the white light they com-

and *Ma* from *verbs* meaning “to nourish” and “to fashion” (neither of which indeed is very applicable) than from the two natural and untaught sounds made by infants, to which the signification of father and mother were *afterwards* applied. Again, the mode of reckoning by tens (at once the most obvious and natural, from the ten fingers) is thought to be “one of the most marvellous achievements of the human mind, based on an abstract conception of quantity, and regulated by a spirit of philosophical classification,” and the child Harpocrates, with its finger to its mouth, has been thought to represent “Silence,” instead of the idea of “infancy,” from a very common habit of young children.

pose, by whirling round before the eye the object on which those three colours have been painted. But besides that the effect consists only of an *approximation* to white, it has no bearing on the question of the effect of colour in ornamentation, which is (fortunately) never whirled round before the eye; and so far from desiring to give to the eye the impression of white, or of colourless light, in placing before it those three colours, our object is directly the reverse; we want to *ornament* with colours, not to *deceive* with colours, nor to place them so that they may “disappear” or be confounded. And as blue and red in juxtaposition borrow from each other, and assume a purple hue when seen at a short distance, it is found expedient to introduce with them a certain quantity of yellow, or sometimes a small yellow or white line of separation, to keep the two colours *distinct*. The object is to present each colour as it is, and to give it its own power, that red should appear red, and the same with the rest; care being taken at the same time that the whole combination of various hues shall be in harmony, by being properly balanced throughout the composition. It would be a strange recommendation for a piece of music so to have the notes put together that they should “neutralise” each other, and that “the constituent” sounds should, like the colours, “disappear.” Such a theory of sound would be novel; the practice far from entertaining. Some, again, use the terms “neutralised and contrasted” as synonymous; and I would most gladly adopt these or any other expressions, if I could reconcile their meaning with the effect produced; as it is of advantage that, as far as possible, we should all employ the same terms. But to neutralise is not to set off a colour; and this last is obviously the effect of *contrast*. (See below, Sect. V.)

8. Another tells us that “death of a colour takes place when the primitive (or primary) colours come together in *equal* proportions; and when alone, or mixed together in unequal

proportions, they are living colours;" that "any primitive colour may be *destroyed* by its opposite derivative" (or accidental colour, as red by green, blue by orange, in equal proportions); and that any "derivative colour may be destroyed by adding the primitive not contained in it." But without stopping to discuss this point it is sufficient to observe that the effects of red on green, and of blue on orange, are totally different; and if the two former diminish each other's intensity, the latter mutually increase theirs, being contrasts, and each giving to its companion its full power. (*See below*, pp. 61, 62.) Others maintain that harmony of colour depends on the primaries and their "derivatives" being used in the proportions of the rainbow; which, according to Newton, are (supposing the whole to be 100), *red* 11, *orange* 8, *yellow* 14, *green* 17, *blue* 17, *purple* 11, and *violet* 22; but it is scarcely necessary to say that the quantity of the secondary colours (58) compared with that of the primaries (42) would not answer for ornamentation, which depends on the contrast rather than on the blending of colours; and this shows the fallacy of attempting to form a theory respecting the harmony of colour from scientific and other irrelevant data.

That proportion must be of the highest importance in decorating with colours is most certain; and this applies to every case where the object is to please the eye; but the conditions under which they are to be used must be considered; and it is not by seizing upon these or those scientific data that rules are to be obtained for our guidance; nor will any theory suffice to establish the harmony of colours, or take the place of the eye, by pronouncing beforehand on their effect. And now before I proceed further, I beg to assure the reader that these and whatever other remarks I may offer are not made in a captious spirit, nor with any intention to censure the opinions of others. My object is to place before him simple facts, and notice some of those views which appear to me to

be erroneous and liable to mislead. I hope also to be excused for so often repeating the same remarks; and though the "*decies repetita*" may not "please" it may fulfil my object of directing attention to those particular points which appear to be most deserving of it, and induce others to confirm, or (if they really see good reasons for it) to show any error in, my conclusions. Nowhere, perhaps, is it more necessary to detect fallacies than when pointing out the use of colour. If, then, I notice any word which seems to be employed by some one in a questionable sense, it is merely with the view of preventing a misapprehension of its meaning; and I gladly abstain from objecting to any theory provided it has no tendency to mislead. To discuss all that have been proposed, or even those relating to the position of different colours in the interior of a building, would neither be necessary nor desirable; but I cannot omit to mention one which, from its possessing a certain amount of plausibility, has obtained many supporters.

9. According to this, *because* the grass which grows at our feet is green, this colour should be placed at the lower part of a wall; while the brown earth being below the grass, brown is required to be in a still lower position; and by a parity of reasoning the sky claims for blue the most exalted place in the interior of a coloured building. As *similes*, these relative positions of the earth and sky are unobjectionable; but the moment they are put forth as *reasons* for the arrangement of their respective colours, they are inadmissible; for though blue demands a prominent place in a ceiling, this is not *because* the sky is blue: cold transparent colours are of use in that position, as they tend to give suitable lightness to the upper parts of a room; and it is well known how a proper selection and disposition of colours may convey an impression of additional height, when required, and accord with the gradations of distance and other necessary conditions.

For though it has been denied that any effect of distance is to be obtained by the use of a particular colour, there is no doubt that a ceiling may to all appearance be raised or lowered by those means; and blue in many positions seems to recede, while red comes nearer to the eye; which is frequently very observable in a coloured glass window.

But the ceiling is not the only position suited for blue; nor can the use of any other colour be determined by its place or quantity in nature.

It is true that our grass (the admiration of foreigners) is more abundant on the ground; yet trees, which rise far above the line of the eye, have not a less claim to the green hue; and in most warm countries green is much more common in trees than upon the ground. Is green then to be used in great quantities, or in one position, in England, and in smaller quantities, or in a different position, in the south? is blue to be employed more abundantly in countries where the sky is clear, and are the neutral tints of our cloudy atmosphere to be adopted for our ceilings? and is the whole tone of ornamentation to depend on and to be varied according to climate?

If so coloured combinations would differ widely in many places from what is really required by harmony: we should have our autumnal and our spring patterns; and some countries where colours are employed with the greatest profuseness would be limited in their use. The Arabs of the Desert would be condemned to give up the lively carpets they weave, and confine themselves almost entirely to blue (of the sky) and an ochry yellow (of the sand); and the Eskimos would be nearly limited to blue and white, as the animals of snowy regions are to the latter hue throughout the winter. On such conditions many colours would be excluded altogether; and excepting blue (in imitation of water and the sky) the primaries would be sparingly used in many countries.

Since the harmony of colours is the chief object in their arrangement, it is not to the purpose to observe that the brown earth and green grass in nature are in contact; the two colours dark brown and green being by no means an agreeable combination; nor would any one be pleased with the same quantity of green in ornamentation that we see in nature. Indeed, when this is *actually copied*, we are far from welcoming that abundance of green which gives us a pleasure to behold in the fields; and the dislike felt for pictures where the greens of our climate predominate is sufficiently proved by our artists preferring to introduce the warm brown tints of autumn; sometimes even to an extent not quite justified even by that season. Besides, if greens are to belong to the lower parts of a building, we ought to make the bases of columns of that colour; and where, as Mr. Falkener very properly asks, is there "a Greek green, or purple, plinth?"* Nor is the sky the only place of blue in nature; it may be found in the low position of water, as green is on the hill side as well as in trees; and in order to carry out a theory drawn from the general aspect of nature, we should be debarred the use of red, which is nowhere to be seen either in the sky, on the water, or even on the earth except in a few flowers at our feet, and in so minute a quantity compared with the surrounding scenery as to make red lose all its proportion, and all claim to a place among the colours of a landscape (for it is on the general aspect of the scene, not on the details, that the theory is based); and black, a very essential colour in ornamentation, would be altogether wanting. Under these conditions the colours in a fine southerly climate would be very limited; while *we* should have to be satisfied with those of our grey atmosphere and our neutral tint clouds. Nor is it a libel so to designate their dominant hues,

* "Class. Mus." i. p. 100.

since some people in this country have actually recommended them for imitation, and have expressed a reluctance to see bright colours; maintaining that they are ill suited to our climate and our impressions, and that greys or neutral tints accord with all around us better than pure blue, red, and yellow, which should be confined to southern countries and clearer atmospheres. But though the blue of the sky is brighter in the south than in our own climate, green and others are more brilliant here; and if, instead of confining ourselves to the general aspect of nature, we contemplate her more minute works we shall find that brilliantly coloured flowers are not denied to the gloomiest climates; where the scarlet poppy, the blue cornflower, and the yellow buttercup, with the broom, and the furze, are as bright as any in the south. If we are to imitate nature it will be better to copy her in some of these details than in the general aspect she bears in any one climate; and she has not taught us to abstain from using brilliant colours in those objects which are the nearest to our sight.

But in reality, the question if or where nature uses bright colours is not pertinent to our inquiry respecting their employment for ornamentation. Works of art are not amenable to the same conditions as those of nature, unless they are copies of them. And when some one tells us that in the interior of buildings the stone should retain its "natural" hue, he seems to forget that a building is not a work of *nature*, but of *art*. For though it would be inconsistent to colour trees beneath which we might seek shelter or make an abode, the squared stone and stuccoed walls are under totally different conditions, and are artificial, like the colour required for ornamenting them.

10. The rage for making every thing assume a supposed appearance of nature was almost universal in England till lately. Artificial gardens were exchanged for others with ser-

pentine walks; avenues were cut down or disregarded; the formal beds, balustrades, and terraces of our old gardens were looked upon with horror; and every part of the ground about a house was required to assume the varied aspect of nature. At the same time, gravel-walks, themselves artificial, were admitted; and if the rage was not carried quite so far as to allow weeds to grow instead of cultivated flowers, it was equally inconsistent to have the (supposed) wildness of nature about a house, which is a work of art, with its angularity and formal lines. It was a vain endeavour to make two opposite conditions coincide. To be in keeping with the aspect of a house, the garden in its immediate vicinity should agree with its artificial character; and nothing can be more in accordance with the style of that work of art than an ornamental dressed garden, from which the gradation to the wild country should be maintained by a decreasing formality in the grounds as they leave the one and approach the other. "Nothing, indeed," as Sir Walter Scott has well observed, is "more the child of art than a garden;" "and flights of steps, balustrades, vases, and architectural ornaments," says Price, "are not more unnatural, *i.e.* not more artificial, than the house they are intended to accompany." The change from the old dressed garden was the consequence of the fantastic caprices of the Dutch (by whom it was caricatured) having been brought into England. A reaction then took place in favour of nature, and the opposite extreme of irregularity succeeded. But it was equally studied and unnatural; and as it was done without regard to adaptability, and without a reason, the result was the anomalous juxtaposition of two incompatible ideas. The same is now attempted in the colouring of works of art: and as it is equally inconsistent, it must equally lead to error.

11. The notion that the quantity or the arrangement of colours is to be taken from nature is obviously erroneous; and

so far from green being employed in the large masses she spreads before us, its use should rather be confined to lighting up a coloured composition, for which it is admirably suited. It may also be introduced in larger proportions, when intended to be seen by candlelight, which improves green, while it interferes with the effect of blue; and this change sufficiently shows how different are the conditions of colour for ornamentation and in nature. So far, indeed, from adopting the quantities and arrangements of colours in nature for that purpose, we should generally deviate widely from them; and who could think of using in decoration the same quantity of green with which she covers the large expanse of a landscape, or of introducing in any one part of a building the mass of green we see in a single tree? It is *reposing* to the eye to look upon the great quantity of green in nature, and there is no other colour on which the eye can dwell continually without fatigue; but in ornamenting with colours we do not seek the same repose which is there required; we seek rather a contrary effect, as in music we are not satisfied with the *melody* of natural sounds, but delight in that *harmony* which is as artificial as the combination of positive colours for decorative purposes. Nor is it our object to have a *repetition* of the least fatiguing colour, or of the least effective piece of music; however soothing green and natural melody may be.

12. The introduction of great quantities of green is one of the mistakes which always creeps in when society becomes artificial, and is one of the signs of a want or of a decline of taste. The very general use of the primaries, frequently with the addition of black and white, and a little green, marks the taste of people before they become artificial, and before the true perception of colour becomes blunted; and experience abundantly proves, that at first pure taste showed a preference for the primaries, and that it was only when it began to be corrupted that a superabundance of the secondaries were ad-

mitted. And thus, in their later monuments, the Egyptians so increased the proportions of green they had previously used with red, blue, yellow, white, and black, that in the time of the Ptolemies green was the dominant colour, extending even over the whole capital of a column. The number of their colours was always limited; these six, sometimes with gold, were almost the only ones employed on their monuments; brown, purple, and orange-red were rare, except on papyri, and to these, in later times, pink was added, with orange-red. The Greeks, in like manner, used green very sparingly for ornamentation in their buildings, where red, blue, yellow and gold, black and purple, with some green and white, were the most common*; and the favourite colours of the Israelites were blue, scarlet, purple, and gold, sometimes on a blue, sometimes on a white (linen) ground.

13. The same dominant use of the primary colours may be remarked in the draperies painted by the early masters of Italy. Nor did they attach importance to landscapes; their subjects were human figures; and as early poetry treats of persons rather than detailed descriptions of scenery, so early painting preferred the human figure. It is only when people become artificial, and have long led the conventional life of towns, that they begin to show an unreasonable preference for rural scenes in painting; and it is then that the reaction in favour of the natural takes place, which has been so well described by Mr. Ruskin. ("Lectures on Painting," iii.)

But I am far from wishing to underrate the beauty of landscape, or from thinking that admiration of scenery misplaced, which is so much felt in this country. And if it be true that the Greeks and Romans of old, or the Italians and others of southern climates at the present day, have not enjoyed

* See below, § 55 Sections III. and IV.; and Part II. § 59, 60.

picturesque scenery in the same degree as ourselves*, I should be sorry to imitate them in this particular.

But that *admiration of nature* is distinct from a *preference* for landscape in painting; and its selection as the favourite subject for art. Indeed the grandest scenes, most admired in nature, are not always the best suited for a picture; the scenery of Switzerland is grand and commands enthusiastic admiration, but it is not always suited for a picture, from the great disproportion of the mountains to the foreground; and we must be satisfied to admire in nature many scenes not to be transferred to canvas.

Connected with this predilection for landscape is that fondness for green already deprecated; and so habitual has this predilection become, that we use the expression "copying from nature," as if it only implied drawing, or painting, landscape. It is in this too that some seek for every illustration of colour, forgetting that what suits a landscape does not necessarily suit a building, or any other work of art.

14. It may be admitted, as Burnet observes, that the colours to which the eye is accustomed in nature are those that are to be sought for in a landscape-painting: "such as blue, white, or gray in skies; green, in trees and grass; brown or warm grey in earth, road, or stone." But this is a totally different question from the treatment of pure, flat, positive, colours used for decorative purposes, where no "toning to those hues most common in nature" is required, or admissible.

The painting is a copy of nature, not so a building, or a carpet. Attention to the due "equilibrium" may be necessary in one as in the other; but from the use of mixed, or compound, hues in the former, and of positive or pure colours in the latter, their treatment, as well as their effect, is very

* I am not however disposed to think that the ancients were indifferent to the beauties of natural scenery; and I have no doubt that to Horace the "*domus Albunæ resonantis, et præceps Anio, et Tiburni lucus,*" were as pleasing as they would have been to any of us.

distinct; and while in paintings, especially landscapes, the colouring chiefly consists of various combinations far removed from the primaries, in ornamentation the due effect is produced by the union of positive colours, most of which should be primaries. But the quantity of each colour need not, as some suppose, be made to accord with that in the prism and the rainbow; and there is no more reason for this than for always arranging colours in the same order as they appear in the prism. The quantity of different colours will also depend on the place, or the position, where they are to be introduced, on the character of a building, and on various conditions; their quality too must depend on circumstances; and the same colours will have a very different effect when seen by candle-light and in the light of day.

15. Some there are who maintain that because in nature certain two colours are found in juxtaposition, they must necessarily be concords; and cite those in various flowers to support their argument; but they forget that besides the petals and the leaves, their eye sees at the same time the yellow anthers, the brown stalk, or other coloured objects, even when the flower is plucked, and many more when it is viewed in the bed where it grows. The light and shade, and sometimes the semi-transparency of the petals, also give to the hues in flowers a somewhat different effect from what they would have as flat colours. But whatever may be the *cause* of the difference, there is no doubt of the fact, and this is all that is necessary for us to notice in considering the agreement or disagreement of the colours. If too, in the great variety of combinations presented to us by nature, there *must necessarily* be perfect harmony; and if nature is expected always to supply us with concords, we shall have no choice left but to receive the *most opposite* combinations with equal favour. The same acceptation of the colours of nature as *necessary concords* must on these conditions be

extended to sounds; and we must at least allow her the credit of giving them to the notes of birds, and the voices of other animals; yet every one will admit that the sounds uttered by a parrot and a pig, though quite natural, are far from agreeable. So too with flowers; and as some are most beautiful and harmonious in their colours, others are discordant: and few persons will go so far as to maintain that all nature's works are equally pleasing, or that the figures of all animals being beautiful, we are to admire the hippopotamus, or other hideous creatures, as well as the most graceful. It might be as reasonable to maintain that every odour in nature is agreeable, as that every combination of colour in nature is so. But those who appeal to *nature* as their guide should rather consult the *natural* taste of man in colour; and this they will most certainly find to be most in accordance with the coloured ornamentation of the best periods, and of people most remarkable for taste in this particular.

16. The coloured works of the Arabs and other orientals will illustrate the fact of the early combinations of colours being the most perfect, and at the same time afford an insight into the proper principle of arranging them in carpets, and similar ornamental fabrics. Here we see that the colour, not the pattern, was the chief object; and, though they of all people had the greatest facility in combining regular geometrical patterns, they abstained from introducing them into carpets. The reason was obvious. The effect was to be produced by colours; they therefore made these the principal features, and showed by the indistinctness of the patterns how secondary a place the latter were to hold in the composition. And here I cannot abstain from noticing some very sensible remarks by Mr. Giles on this very point: that "colour, and not the pattern, is the primary source of interest in such cases, as in the ordinary Turkey carpet, in which no one looks for a pattern; and while our Axminsters, Wiltons, and Kidderminsters, the designs of

which have been considered rather than the harmony of their colours, are so distressing in their obtrusive roses and cornucopias, the incomprehensible and oft-repeated interlaced design of the old Turkish carpet seems never to weary."

Those coloured oriental fabrics also show how superior were the earlier to the later productions; and how in recent times there has been a tendency to admit a greater admixture of green* and other compound colours. And though Orientals have deviated less than most people from the purity of their early taste, they have introduced a more artificial manner into some of their modern carpets and other coloured ornaments. They admit fewer innovations than Europeans in their customs and tastes, and the change in colour is also less marked among them; but a false taste seems to be gradually influencing some of their modern fancy-works (accelerated perhaps by the selection of the purchasers), though they still exhibit a far greater perception of the harmony of colour than the western more civilised and more artificial communities. To such a degree do the Arabs possess this faculty, that were any of their children furnished by chance with a number of colours, and requested to form them into a pattern, they would be sure to arrange them in some pleasing concord; and many a toy they make is remarkable for the beauty of its coloured ornaments. Thirty or forty years ago, even in the streets of Cairo (where early taste has so long been corrupted, and where it is so inferior to that of the Arabs), the most striking combinations of colour might be seen in the hands of the unsophisticated members of the community; and the artistic judgment of our Consul-General, the late Mr. Salt, aided by long acquaintance with the oriental practice of harmonising colours, often induced him to buy some of the playthings of children, for

* Not only in grounds, but in mixed patterns. See below, on "*Grounds*," Sect. IX.

the beauty of their fancy designs. Among these I remember an orange, into the surface of which they had cut a mosaic pattern, leaving the orange rind as a ground, and filling in all the triangular and other hollows with various brilliant colours; than which (comparing small things with great) nothing could be found more harmonious in the mosaics of Italy, or of Damascus, or on the walls of the Alhambra.

17. In Europe it is among the Italians that we find the truest perception of the harmony of colour; and it would be far better for those in England who attempt coloured decoration to follow the taste of Italy in this matter, than to adopt the crude notions of some northern people. A blind predilection for German examples is specially to be shunned; for though some modern Germans (as Hess and others) do possess a proper appreciation of colour, the general character of their coloured ornamentation is utterly at variance with harmony; and a dingy green is often put in juxtaposition with strawberry-and-cream colour, with an evident innocence (or perhaps in obedience to some learned theory) which proves how little they are aware of these two forming a most disagreeable discord. An impression of some of these German mistakes may be obtained from the lower part of the great staircase of the British Museum; from the windows of the south aisle of Cologne cathedral, by Cornelius; and from the corridor and other parts of that frightful building the Pinakothek of Munich. The Italians, on the other hand, free from any *grass*, or other, *theory*, and guided by the eye, adopt more primary colours for ornamentation. They fearlessly use blues, and reds, and yellows; greens and other compound hues being in smaller proportions; and they obtain a balance of tone by placing near the ground deeper, or fewer transparent, hues, than in the upper parts of a wall, thereby giving an appearance of lightness to the higher portions of the building.*

* Examples of this may be mentioned in the Palazzo Martinengo at Brescia,

18. If the *reason* of our preferring dull to brilliant colours is (as some suppose) attributable to the grey tints of our northern atmosphere, how is it that other northern people use colours as vivid as those of the south? The Indians of North America, the Eskimos, and the peasants of Northern Russia and Siberia, ornament their fancy trinkets with the same bright combinations as the Arabs. The colours they prefer are the primaries; and brilliant hues hold a conspicuous place in their simple patterns. Nor are those colours excluded from the ornamental works and porcelain of the Chinese; though these last are often deficient in form and elegance of design. It is not our climate which has made us indifferent to the beauty of colour. England, some centuries ago (as Mr. Cutts very properly observes), was not externally so colourless as now. The groups then seen in public on grand occasions were "clad in bright colours:" knights wore "armour of silver scales, covered by a jupon of azure, embroidered with armorial bearings," and were mounted on gaily caparisoned steeds; and those who were the spectators at a tournament, or who attended any festive meeting, were "gay as a flock of tropical birds;" while the windows of the castle, or the houses of the towns, were hung with draperies rich in brilliant hues. Public monuments were decorated with painted ornaments, as well as the interiors of houses; and the church was rich with colour throughout. The brilliant glass window did not then offer an incongruous contrast to white walls, as in our modern churches; nor did the ceiling, isolated from the rest of a room by whitewash, proclaim a thorough disregard for all agreement with the general effect of the coloured furniture and hangings; and the painted representations of churches and domestic apartments in those days, as

given in Pl. xxix. of Grüner's *Fresco in Decorations*; in the Chartreuse at Pavia, Pl. ix.; and in the Church of St. Maurice at Milan, Pl. xi.

well as the remains of colour on various monuments, show how universal was the employment of brilliant ornamentation in this, as in other countries.

19. There is an inconsistency in our estimation of colour: we admire and use it in some places, while we affect to be above its employment in others. Our taste is artificial, and it is, therefore, undecided and ill-defined. When our cathedrals were built they were ornamented with colour throughout; they were not considered finished without it; every tomb afterwards put into them had its painted devices and mouldings; and the glass window was part of the whole coloured decoration. Colour was with all people in old times a necessary accessory to architecture; and it was equally held to be so in England. "The builders of those cathedrals," says Mr. Ruskin*, "laid upon them the brightest colours they could obtain, and there is not, as far as I can learn, in Europe any monument of a truly noble school which has not been either painted all over, or originally touched with paint, mosaic, and gilding in its prominent parts. Thus far Egyptians, Greeks, Goths, Arabs, and mediæval Christians all agree; none of them when in their right senses ever think of doing without paint." Our indifference to colour then is sanctioned neither by ancient usage nor by good taste. There even lingers among us an admiration for the obsolete scarlet cloaks of our peasantry,—one of the few remains of old times; and it was long the habit of our painters to introduce the contrast of blue and red costumes into their landscapes.

The colours too which we used in our early cathedrals were (as in other countries when good taste prevailed regarding them) chiefly the primaries; those buildings which had a superabundance of green and other compound and mixed colours having been subsequently repainted; and the changes

* "Stones of Venice," ii. p. 90.

at this later period may be at once verified by comparing them with the dominant colours of the *unchangeable* glass windows of the earlier age, executed in the 1200* and the following century. From all this it follows that the neutral tint "*quiet colour*" of England (which many people of demure habits seem to associate with propriety, as if the beautiful was connected with sin), the browns and yellows of a Flemish painted glass window, or the dull hues of the dingy Dutch carpet, are not attributable to any malady of vision produced by a murky northern atmosphere; they are rather owing to the loss of the natural and true perception of colour, and to its not having yet been succeeded by a knowledge of it obtained from good precepts. The one has been lost, and the other has not yet been acquired. It must be admitted that the painted glass windows of our cathedrals generally find favour even with the English; it is, therefore, surprising that so many should be inconsistent enough to deny any colour to the rest of the building; those who have objected to this, both on the window and the wall, are at least more consistent; and a better excuse may be found for their prejudice than for the caprice of placing a coloured window only at the east end of a church, where it stands in glaring contrast to all the rest of the whitewashed building; and where, from its generally affecting to imitate a "*painting*," it has all the appearance of a transparent blind. Some again object to coloured glass because the light of the sun, passing through that variegated medium, injures the effect of the pictures which may be in the church; but this objection is not a fair one; for, as I have elsewhere observed (Part II. § 58), such works of art, on

* I hope I may be excused for using this mode of expressing dates, in preference to the usual one. It prevents that confusion of 13th and 14th centuries, and the necessity of recollecting, when we say 13 or 14, that we mean 12 or 13. The only deviation from this will be in the "1st century," which it will be necessary to retain.

panel or canvas, are out of place there; and if they are interfered with by the colour of the glass, as they are by cross-lights, or by being placed under a window, or within a dark recess over an altar, or by any other accident of position, to which they are constantly subject in a church, the fault is not in the building, but in the unsuitableness of the place. They should not be there. When the walls of a Gothic church are decorated with painted designs which form part of the whole coloured building, those designs must be subservient to the effect of the general ornamentation; but this is a condition to which the "painting" on panel or canvas is never expected to conform. And if the iridescent hues, sometimes thrown on a wall by the sun's rays passing through a coloured window, interfere with the proper effect of the ornamentation upon that wall, that is after all only a momentary disadvantage, similar to that of the sun itself shining directly upon it through an *uncoloured* glass window, which would equally interfere, for the moment, with the effect of its colours. On the other hand I cannot agree with those who think the iridescent colour thrown on the opposite wall, or on the pavement, is any *reason* for employing painted glass windows. Besides, this is quite transitory, and a "separable accident," and has nothing whatever to do with the colour of the building; the beauty and effect of which must depend on its own merits. There are, however, some churches, the style and decoration of which neither require nor accord with coloured glass, as those of the Renaissance, painted with large frescoes, where coloured glass windows would conceal and interfere with their effect; and in such buildings the windows are made of plain transparent glass, in order to admit all the light required for that species of ornamentation. Nor would painted glass be suited to a building of Gothic style, decorated with *fresco paintings*, such as Giotto's Chapel at Padua.

20. And here I may be permitted to offer a few remarks on

coloured glass; particularly in reference to its employment for windows in Gothic churches.

Among the various kinds of coloured ornamentation, which have justly claimed attention at the present day, are glass windows; and great advances have been made in the manufacture, as well as in the arrangement, of painted glass for our churches. We have fortunately many excellent examples remaining of this kind of decoration, especially in the ecclesiastical buildings of France; and the specimens of different periods are such as to enable us to judge of the effects and merits of their various styles, and to determine which are most eligible as our guides. France was long noted for its superiority in painted glass windows; and already in the time of Theophilus, who flourished according to the most satisfactory evidence "in the XIIth century," France was the country which had then made the greatest advancement in this species of ornamentation. For in enumerating in his Preface the various subjects he is about to treat of in his work, "*Diversarum Artium Schedula*," he assigns to Greece * the superiority in the kinds and mixtures of divers colours (as well as in the manufacture of the brightest transparent coloured glass cups, in glazing pottery with vitrifiable colours by the action of fire and enamelling, and in various processes of ornamental glass-work:—ii. 14, 16); to Tuscany, in various kinds of enamel; to Arabia, in malleable, or fusible, and chased, work; to Italy, in the variety of vases, the decoration with gold, and the carving of gems and ivory; to France, in the precious variety of windows; and to Germany, in the delicate workmanship of gold, silver, copper, iron, wood, and stone.

* Art among the Byzantine Greeks is said to have fallen "in the 8th, 9th, and 10th centuries," and to have "improved again under the Comneni in the 12th century." (Lord Lindsay, ii. p. 54.) Thus the mosaics of S. Apollinare at Ravenna, of the middle of the 500, are better than those of S. Mark's of the 900, and the following century.

It is true that Italy also had painted glass; and that at a very early period, some at Siena being of 1230; but coloured glass windows were not generally adopted in Roman churches; and if in those of Northern Italy they were used, and some, as at Perugia and elsewhere, were very beautiful in colour and design, they were not of the same early period of which Theophilus speaks; nor do we now find in Italy the numerous brilliant specimens of glass windows which abound in France of the 1200 and the following century. Indeed, the earliest specimens of *painted* glass windows in western Europe are in France, some of which date before the end of the 1100; as in the Abbey of St. Denis, where the first crusade is represented on glass of the year 1194. Painted glass windows were also made in Flanders and Germany in the 1200; but France claims the precedence; and Suger, Abbot of St. Denis, is said to have patronised the art of painting on glass in France in 1152.

It is difficult to ascertain how France arrived at the art of painting glass, or whence she derived the first elements of that knowledge. Some have at once pronounced that it was from the Byzantine Greeks, and there is no doubt that coloured glass had been used for windows by them, long before it was employed for that purpose in Western Europe. But those which remain are of *stained*, not *painted*, glass; and they afford no decisive solution of the question. The same were adopted by the early Arabs from the Greeks, who had used them long before the Arab conquests began; and about the year 400, Prudentius (as Labarte has shown) speaks of the employment of glass in the basilica of San Paolo-fuori-le-mura at Rome, built by Constantine; where, he says, "in the rounded windows are displayed panes of glass of various colours: thus do the windows shine when decorated with the flowers of spring." "The existence of coloured windows" is again more distinctly mentioned "in the 6th century"

(Labarte, "Handbook of the Arts of the Middle Ages," p. 66), and Pope Leo III., in 816, adorned those in the apse of S. Giovanni Laterano, "with glass of various colours." It is evident then, that *stained* glass windows were used during the 300, in the age of Constantine, and they are even admitted to have been known in the previous century.

That it was likely to be adopted for windows in hot climates as soon as the art of applying it became known, is highly probable; as the direct transition of heat is less through coloured, than through white, glass; and for this reason the Arabs in Egypt and elsewhere preferred the former, whenever they glazed the windows of their mosks or dwellings. Debarred as they always were from the representation of the human figure*, they only introduced conventional forms; and their patterns, which frequently resemble, rather than imitate, a flower rising from a fanciful root, or a vase, are composed of various pieces of coloured glass (according to the earliest method), each surrounded and separated from its neighbour by a thin partition composed of egg and gypsum, in lieu of lead-work. The windows are small, both in the mosks and houses; and the former are generally made up of geometrical patterns and other devices.

21. Colourless glass windows ("speculariorum usum, perlucente testa, clarum transmittentium lumen,") were already used in the age of the first Cæsars, as shown by Seneca (Ep. 90, p. 398), and perhaps also by Philo Judæus (Leg. ad Ca.); and Seneca says (Ep. 86, p. 373), "rusticitatis damnant Scipionem, quod non in caldarium suum latis specularibus diem admiserat." And though talc or other translucid substances might possibly be implied, Seneca's speaking of the "multâ luce" would rather require them to be glass; "*specularia*" was the name

* The few instances where figures have been introduced by the Arabs in Spain, and by the Moslems in Persia, are not sufficient to disprove the force of the injunction. The same remark may apply to the cherubim of the Jews.

given to glass windows or panes; and paintings on glass were long known in Rome. Moreover, the fact of glass panes having been made before A.D. 79, has been established by the discovery of one at Pompeii, as well as by the fragments of others found at Herculaneum. These, it is true, are colourless; but glass of various hues was employed for many purposes: for making beads, false stones, and other objects of ornament and utility, in the Augustan age at Rome.* Seneca (Ep. 86.) speaks of Roman ceilings quite covered with glass (*vitro absconditur camera*); and glass mosaic is said by Pliny to have been introduced into Italy by Agrippa. Indeed, glass ornaments were brought from Egypt long before; as at the fête given to the Roman people by Scaurus, and on other occasions, when they were worn as personal trinkets, in accordance with a common custom in Egypt; where coloured glass was very generally employed for ornaments of different kinds, as well as for vases, for false stones, and for many purposes.† Egypt indeed had for ages been famed for its manufacture of glass, and it was doubtless from Egypt that Sidon and afterwards Tyre, and at a much later time the Romans, learnt this valuable art. It is scarcely worth while to refute the story told by Pliny of the supposed discovery by some Phœnician sailors returning from Egypt, with a cargo of *natron*, which they could only have required for the very purpose of making glass, the knowledge of which they had derived from that country; and the accidental discovery of glass-making could only be looked for in the land which produced the *natron*. But a more decisive proof of its having

* See Part II. § 86. See also Raoul-Rochette, "*Peintures Antiques*," p. 368—390, &c.

† Probably, as at Rome, for magnifying objects. Seneca (N. Q. i. 3, p. 834) says: "*Poma per vitrum adspicientibus multo majora sunt*;" and (i. 6, p. 837) "*formosiora quam sint videntur si innatant vitro*." A lens has even been found at Pompeii, and another at Nineveh. Nero having weak eyes used a green glass (said to be an *emerald*) when looking at the gladiatorial shows: "*spectabat Smaragdo*." (Plin. xxxvii. 51.)

originated in Egypt is afforded by the oldest records that remain, of a time too when there is no appearance of its being recorded as a new discovery : and the simple process of glass-blowing is represented in the usual way among the Egyptian sculptures of the time of King Shafre, the founder of the second Pyramid, about 2400 B.C. The process too of staining glass of various colours, is shown to have been employed about the same period ; and the method of cutting and engraving it is proved by a large bead, bearing the name of one of the Pharaohs, to have been known at least as early as 1460 B.C. Glass was one of the exports of the country ; one kind could only be made there ; and so celebrated was Egypt for the excellence and abundance of its glass, that it constituted part of the tribute imposed upon the Egyptians by Augustus. It was of the most varied hues ; and the many-coloured ornaments superadded to the surface of the vases, and other objects, and fixed by the blowpipe or the furnace, are referred to by Martial *, and are seen in those many-hued cups found in Egypt (and elsewhere), which are doubtless imitations of the real murrhine †, a stone answering to none other than fluor spar, which bears an evident resemblance to those productions of the Egyptian glass-makers.

The immense emeralds mentioned by Pliny and others were glass ; so too were many cups and ornamental objects, noted for their richness, in the low ages ; as the supposed emerald dish called “ *Sagro cateno*,” of Genoa, which “ came into possession of the Genoese, as an equivalent for a large sum of money, at the taking of Cæsarea in Syria ; and which,

* See Martial's Epigram, xiv. 115.

“ *Adspicis ingenium Nili, quibus addere plura
Dum cupit, ah quoties perdidit auctor opus.*”

† Pliny (xxxvi. 26) says this was imitated in glass : “ *fit et album et murrhinum.*” (See xxxvii. 2.)

pawned in 1319, was redeemed for 1200 marks of gold, or about 3000*l*." Pliny, speaking of false stones, says the emerald was the most easily imitated; and glass cups, combining in their patterns many different hues, were made in Egypt, and afterwards at Rome, without cracking,—an art now lost, and vainly attempted of late at Venice.* Coloured glass was therefore a very old invention; and if it was not employed at Rome for windows, the mode of making flat panes of white glass had long been known; and it is probable that the coloured material was used for the same purpose, at a much earlier time than is generally supposed. Indeed, the figurative allusion by St. Paul to seeing through a glass darkly, shows that the habit of looking through stained glass was sufficiently common to be taken as a metaphor.

Colourless panes of glass having been once adopted, the use of coloured ones would naturally follow, as soon as the want was felt; and the art of colouring glass having long been known, we can readily account for their being employed at the comparatively late time of Constantine. Their introduction into Western Europe from Byzantium, the repository of all the arts after his age, is therefore only what might be expected.

22. The art of making glass had first gone from Egypt to Rome, and thence, in after times, to Constantinople; but it is uncertain whether the Venetians introduced it directly from Egypt, to which country they traded at the beginning of the 800 A.D., or from Constantinople. Their first glass-manufactories were established on the island of the Rialto; and afterwards in different parts of Venice, until the numerous fires they caused induced the Senate to confine all glass-blowing operations to the isle of Murano, where they are

* I observed that at Murano they were obliged to form an interior layer or coating of glass, on which they placed the exterior face when this was of many colours.

still carried on; but the art was long kept a profound secret, and any one betraying it was condemned to the galleys. Venice, therefore, had alone the advantage of supplying other European markets with this valuable commodity, which found its way into many countries, and even to China; glass was employed by her in the manufacture of false stones, as well as various useful and ornamental objects; and so highly was it prized, that slaves were ransomed with it from the coast of Barbary.*

To an early intercourse with Venice might reasonably be attributed the introduction of the art of *staining* glass into France; and the manufacture of enamelled ware† at Limoges is said by the Abbé Texier to have owed its origin to a colony of Venetians, who settled there in 979, and who had with them many Byzantine artists. This settlement was connected with their trade in spices and oriental stuffs, brought in their ships from Egypt to Marseilles; and the fact of the builder of St. Mark's, the Doge Pietro Orseolo I., soon after he abdicated the Dogeship, having fixed his residence in France (A.D. 978), is another proof of the intimate relations which subsisted at that period between the Venetians and the French. To the same Doge Orseolo has been ascribed the erection of the church of St. Front at Perigueux—a building supposed to have been copied from St. Mark's at Venice, but with the peculiarity of pointed arches; which also occur in several of the early churches in that neighbourhood of the same Byzantine style.

23. The manufacture of stained glass evidently came to France either directly from the Greeks of Constantinople, or through the Venetians; and it would not be difficult to account for Byzantine influence extending to France, when the Greeks

* According to the advice of Marco Polo.

† The Romans were acquainted with real enamelling as well as the inlaying of the material within raised metal borders (*à cloisons*, or *cloisonné*).

abounded in Italy; and when the marriage of Otho II. with Theophania, daughter of Nicephorus Phocas, in 967 A.D., brought so many Greek artificers into Western Europe. The leading country in art *always has had* an influence on other people; and this of Byzantium was even felt in a minor degree in Britain and Ireland at those early periods.

Mr. Whinston cites proofs of the early French *painted* glass displaying Byzantine features, and traces a resemblance between the glass *paintings* of the middle of the 1100, and the illuminations of contemporary Greek MSS.; and he thinks that "the glass-paintings which, on the whole, most closely resemble the antique, are those executed between 1170 and 1240, or thereabouts." These Byzantine features, however, are disputed by some French writers of eminence, who maintain that though the use of *stained* glass for windows was adopted by the Byzantine Greeks long before it was known in France, the art of *painting* on glass was a French invention. But here again the Greeks have a prior claim; as Theophilus (ii. 14) shows that they *painted* glass and *burnt in the colours* at the same period; and no one will maintain that they derived the secret from the French. And though he mentions the painted glass windows of France, "he attributes," as Labarte observes, "to the Greeks alone the production of vases of ornamental glass," and the French, even in "the fourteenth century," had recourse to the Greeks for every "piece of decorated glass."*

24. The distinction between stained and painted glass consists in the former being of one uniform hue, while in the latter the colour is applied to the white surface and then burnt in. This last is used in the "Enamel Method," which admits no stained glass, and requires the whole picture to be painted on the previously colourless surface. The other is called the "Simple Mosaic Method," and in it the whole picture is made

* Labarte, "Handbook of the Arts of the Middle Ages," pp. 336, 337.

up of pieces of stained glass, according to the colours required to form it. There is also a third, called the "Mosaic Enamel Method," in which some portions are of stained, others of coloured glass, combining the two former methods, though this last distinction is not always maintained. What is generally called mosaic glass has really some of its details and shadows marked out by colour; and of this kind are the earliest windows of the 1100 and 1200 in France. For though composed of coloured pieces of glass, held together by the leads which form the outlines of the designs, the shading is made by lines in bistre laid upon the surface, and afterwards burnt in; and the same colour* is used for some of the details and folds of draperies.

The art gradually grew out of the original simple mosaic process. But it has long been a question when and where the first idea originated of adding the few shades and bistre lines; for in that was the germ of the enamel process and the *real origin of painted glass*.

25. In arguing this question it has been observed, on the one hand, that the hard outlines formed by the lead-work and the line-shading are consistent with the character of Byzantine paintings; on the other, that those formal outlines merely resulted from the mode of fixing the pieces of glass, and that the Byzantine character of the figures would only show that *they* were copied, like many early paintings, from Greek models; while some have made this more pertinent remark, that if the discovery of the new art of *painting* on glass had been made in France, it could not have been unknown to Theophilus, and that he would have noticed an innovation introduced about his time.

There is, however, no need of conjecture; and, as I have already shown (p. 27), he actually states that it was practised by the Byzantine Greeks. And if we find no specimens of the

* Some bright lights were scratched in a superadded coat of bistre.

painted windows in their churches, still the direct evidence of Theophilus suffices to establish their prior claim to the use of painted glass, as well as to the manufacture of painted glass vases, for which they were celebrated at the same period.* Our not finding painted windows in Byzantine churches may also be explained by the fact of their walls having been generally decorated with coloured subjects, whose effect would have been impaired by the coloured windows; still, this does not disprove an acquaintance with coloured glass, or even its *occasional* use in these and other buildings; as the absence of the arch from the temples of Egypt does not disprove its invention in that country, or its frequent employment in houses and tombs. The extent of the claim which is to be conceded to the French is their having *generally* introduced it into churches; and though the first idea of burning in the colours was derived from the same source whence the composition of the simple stained window was obtained, this honour of priority may be accorded to the Byzantine Greeks without detracting from the merit due to the French of having been the first to bring the art of *painted* glass to a perfection which the Greeks could never have attained. The glory of Italy in the art of painting has not been diminished by the fact of her having been indebted to Byzantine models; and France may well be satisfied in having carried glass-painting to perfection, and in having been the first to give it that brilliancy which constitutes the merit of this beautiful art.

26. The main point to which it is my object to direct attention is the choice of style in coloured windows; and the one which should be selected for our study and imitation is certainly the mosaic glass of the 1200. It is true that the glass of the next century (the 1300) was often richer in colour; but the question now relates to the arrangement of colours

* The Greeks established this manufactory at Damascus also; and painted glass vases from Syria may still be seen in some of the mosks in Cairo.

and the character of the ornamentation, not to the excellence of the colour imparted to the material. Convinced that the best arrangement of colours is to be found in the windows of the 1200, and that the principle was to make the windows part of the general composition of the whole coloured building, I agree with Labarte that the merit of those windows "is their perfect harmony with the general effect of the edifices to which they belong. At whatever distance we examine them, we are struck by the elegance of their form and the brilliancy of their colour. The artist has had no intention of executing an independent work; he has given himself little trouble about a faithful copy of nature; his whole aim has been to contribute, under the direction of the architect, to the ornamentation of the building; and he has never failed of success, through the skilful arrangement and harmonious distribution of his colours, which, notwithstanding their brilliancy, shed over the interior of the temple a mysterious light, adding much to the solemn grandeur of the architecture. The harmony of effect did not exclude a richness of detail. The mosaics of the grounds, and the borders which surround them, are always of graceful patterns, of infinite variety, and of charming originality. The subjects are characterised by a touching simplicity, neither devoid of life nor movement." As the deeper shadows admitted into them are made by lines, and some lighter ones by *smear-shadows*, they are not open to the same objection as the dark continuous shades of the late enamel glass, which interfere too much with the transmission of light, and have a heavy appearance from the light being so unequally intercepted by large opaque shadows.

The general arrangement in the mosaic windows is a series of medallions, or lozenges, surrounded by, or imbedded in, a coloured mosaic ground, which, together with the medallions and a rich border, form the whole composition of each

coloured light. They have, by way of distinction, been called *medallion windows*: as those with figures of saints under canopies have received the name of *canopied windows*.*

27. The *medallion window* belongs to that period when single lights, either roundheaded or lancet shape, were used, though it was also continued, particularly in France, long after the mullioned window had taken the place of the single lancet. Subjects selected from the Bible and Testament are represented in the medallions, where the figures are few, and distinct, as in antique compositions. The medallions themselves are circular or oval, trefoils or quatrefoils, or of other shapes, each containing its separate picture; while some of larger size are subdivided into two or more compartments, each having its own subject; and the greatest variety of the forms and arrangements of the medallions may be seen in the beautiful windows of the cathedrals of Rheims, Chartres, Bourges, Auxerre, and Sens, the Sainte-Chapelle, and other French churches. The intermediate spaces between the medallions, extending to the border of each light, are occupied by the mosaic ground, consisting of one uniform pattern, on which the medallions are supposed to be placed; and at each side next to the border is a section of the prevailing medallion, or some other geometrical device. The ground is formed of crossing lines, or an imbricated or other design, or a running pattern of scroll-work or arabesque foliage.

The pattern of crossing lines and the imbricated one being both very common in architecture, on the flat surfaces of walls, at this and at an earlier (Norman) period, they may have been

* These last were also contemporary with the later medallion style; and some good specimens of canopied glass windows, with single figures, are found in cathedrals of the same period, as in the apse and choir of Rheims and others. (See that useful work, "Monographie de la Cathédrale de Bourges," Pl. XVIII. XXII. XXIII. XXV.) Their effect was not then impaired by the opaque shadows and the heaviness of the canopies of a subsequent age, as in La-steyrie, Pl. L. of 1400 A. D. and others.

adopted as belonging to the time, rather than for any merit as glass patterns beyond that of being easily adapted by their form to the purpose; but the arabesque pattern (which was used in windows at the same period) was the result of greater feeling for graceful ornament. It is certainly preferable as a ground. This, indeed, is abundantly shown by the windows in the Sainte-Chapelle at Paris, erected by Louis IX. (1241-1244), which for form, variety, colour, and the combination of the medallions and grounds, are conspicuous among the most splendid ones in France of that period. And while mentioning the beauty of that glass, I cannot but do justice to the talent of M. Lusson, who has been employed to restore it; for the most fastidious and accurate eye is unable to distinguish between the original and modern parts of those brilliant windows.

The coloured grounds are frequently composed of red lines on blue, with a yellow dot at their junction, or in the centre of the blue field; or of arabesque scroll-work of red, yellow, and some little green, on a blue ground. The general rule respecting the ground is, that its pattern shall appear to be continuous, and (as I before stated) with the medallions placed *upon* it; not, as in some modern glass, with the *ground* broken up into separate spaces, each containing its own pattern, whereby a great quantity of the colour of the field is left plain around that pattern. This makes the window heavy, disturbs the distribution and harmony of the whole design, and is directly opposed to the true principle of mosaic glass-work. Another important point in the treatment of grounds is to prevent their extending over too large a surface; for wherever they occupy the greater portion of a window the proportion and the general effect of the whole composition are impaired. This too should be borne in mind, that neither in the grounds (when surrounding medallions) nor in the figures, nor in other parts of a window,

should there be any large space covered with one unbroken colour. At the same time the caleidoscope minuteness produced by putting together numerous small pieces of coloured glass should be avoided, having a paltry and spotted appearance; and proclaiming poverty of invention, and imperfect knowledge of design. The want of sufficient space for the grounds is also a fault; and the juxtaposition of several medallions, or compartments of similar form, with little or no ground between them, is fatal to the effect of a window, being monotonous, and tiresome to the eye; and some variety in the form, as well as in the contents, of several of the medallions, is more pleasing than the constant repetition of the same. The borders should be equally varied, as in the windows of the 1200, where they frequently have arabesque scrolls and other patterns, with a due quantity of blue, red, and yellow, and sometimes a little green, according to the design in the centre of the light, with which the border should always accord in motive and colour. In the medallions, while the primaries predominate, brown, purple, and orange, and some mixed colours are admitted; and round each of these is an edging of one or more colours, in order to frame it and separate it from the ground. This edging is often red, blue, or yellow, according to the colour required, with a rim of very light neutral colour, supposed to answer to white, but which is mostly of a greenish hue; and the best windows have the least transparent, or translucid, white glass. Whenever this is introduced in quantity, it spoils their appearance, causes them to look hard, and cuts out the medallions too harshly from the ground. It is still more objectionable when in contact with the lead lines, as it makes them too prominent, and injures that effect which is produced by their judicious employment.

28. The use of much white glass, whether transparent or translucid, in a coloured window, is one of those fatal mis-

takes which have found favour in modern times, and, as some few instances of it occur in old windows, it has been thought to have the sanction of good authority. But those few instances ought, on the contrary, to have shown its deformity, and whether really original, or (as in some cases) restorations made at the time when much colourless glass came into fashion, they serve as beacons to be shunned.

It is quite as necessary to know what to avoid, as what to imitate. For it should be laid down as a rule, that no glass should be white in a coloured glass window, except when absolutely *required as part of the composition*; and wherever a simple space, or edging, is to be introduced, without being of any positive hue, it should be of a neutral tint, like the subdued greenish hue of partially bleached glass. This neutral hue should also be rather deeper in windows on the south, and even on the east and west sides of a church, than on the north; and additional depth may in like manner be given to all the colours of windows on the south, and also on the east and west, in consequence of the greater quantity of bright light and sunshine passing through them than through those on the north.

When more warmth and richness of effect are required, the lighter borders may have a greater quantity of yellow; provided always that *too much* yellow be not used, so as to exceed its due proportion to the blue and red; and it is easy to perceive the marked difference that subsists between a window where transparent, or translucent, white glass is used in such borders, and where yellow is permitted to impart warmth to them; the effect of the one abounding in white glass being poor and cold. Windows too in which figures or any coloured pattern are introduced upon a white, or even on a good diaper, ground have an insignificant character; they often appear as if made up of stray parts of some other composition, and are only excusable where much light is required.

29. Another error, greatly to be condemned, is the confusion sometimes seen in blues and reds, which are made to appear purple when seen at a distance. It has been fatal to many of our modern windows, otherwise not devoid of merit. Among the causes of this are the want of a sufficient quantity of yellow, the improper arrangement of the reds and blues, and the absence of other colours required to combine with them. A yellow, or a white, fillet between the red and blue, or a spot of the same placed on the centre, or at the junction of the two, will obviate it; though, as before shown, white has a poor cold effect, and yellow is to be preferred, both for its richness and for its completing the combination of the three primaries. But in all instances of coloured decoration the different hues should be so arranged in the general composition as to prevent an undue and disproportionate effect of any one colour.

30. It sometimes happens that the pattern is allowed to run from one light to another, half being on one and half on its neighbour; and this is very allowable, provided the *figures* in a medallion, or in any other part of the same light, do not cross from it into the adjoining one, the mullion cutting them in half. It is often seen in windows of later periods, and particularly in those of the 1400, and the following century, when opaque stone mullions are allowed to pass through the body of a man, or otherwise painfully to divide and interfere with the subject. The fault arose out of the attempt to make a large "*painting*" on glass,—an abuse which was suffered to creep in towards the end of the 1300, and which ended in producing all the defects of those grandiose windows so much admired in Belgium and elsewhere, and which have fatally interfered with the true principles of painted glass.*

Like the splendid monstrosities of Louis XIV. and XV. in

* As in Pl. xcix. of Lasteyrie's "History of Glass-Painting," a window of the seventeenth century in the Chartreuse de Molsheim, and many others.

furniture and various ornamental works, they have imposed on innocent minds and warped the judgment of those who are more influenced by splendour and an *ad captandum* display than by good taste: and as the judgment is apt to be misled by what is specious and seductive, greater care is requisite in order to guard against its influence.

31. In the 1300 brilliant colours were given to glass, and its manufacture was excellent. At that period, instead of the mosaic patterns of the previous century, larger figures of saints under canopies occupying each a single light (already introduced in the previous century, particularly in the upper windows), came into more general use; and though there is no objection to these figures, provided the masses of colour are not too great in some parts, the shadows not too heavy, the figures not too large, and the canopies not deeply shaded, nor of a different character from the building itself, they are far less pleasing than the medallion style. Nor can we forget that they are always likely to lead to the introduction of "*pictures*" on glass, and the abandonment of the true principle of *vitro-chrome* decoration. Great masses of unbroken colour in the grounds and the draperies give a heaviness to the design; and in consequence of the human figure being received as the standard of size, this, when larger than life, disturbs proportion, and when placed in the upper story deceives the eye by taking away from the apparent height of the building.

It is true that, as in Northern Italy, there are many specimens of single figures occupying the whole breadth of one light, sometimes in compartments one over the other in the same light, which are highly to be commended; and as long as the conditions just specified are regarded, single figures may safely be introduced. But as those conditions are so often violated in this mode of decorating windows, and as their effect is generally inferior to that of the mosaic pattern, the latter is to be preferred. It is difficult to avoid the tendency

towards making a "*painting*" on glass when single figures are so introduced; and as they did before, so they would probably again lead to a departure from the true principles of painted glass windows. We observe how in those days, after the latter part of the 1300, the window assumed step by step the aspect and pretensions of a large picture, until at length in the 1500, whole windows consisting of several lights were covered by one continuous subject; and massive yellow canopies, miscoloured *baldacchini*, and monstrous transparent columns, with other architectural accessories, defied all harmony of colour, proportion, and possibility. The predominance of yellow, of yellow-brown, and of transparent colourless glass, together with the substitution of the secondary and tertiary hues for the primaries, destroyed all harmony of colour; and besides a constant repetition of discords, the scrolls and broken outlines in vogue at that period disfigured the designs, as the ponderous architectural ornaments of the Renaissance period interfered with the character of the building itself.

In the "Athenæum" of June 16, 1855, in a review of Mr. Oliphant's useful book on glass-painting, are some just remarks respecting the windows of different periods; and in the glass of the Perpendicular time the colour is described as "blanched, hectic, sickly, and unwholesome." "The paintings are too highly finished, and painted without reference to their position;" and "in 1450, when the Perpendicular had seen its best, in spite of Ulm, Munich, Cologne, and Rouen, glass-painting lost its harmony of purpose and integrity of design. The cinque-cento brought with it huge colonnades, triumphal arches, cupids, and all the refurbished lumber of a galvanised paganism. The present ruin of glass-painting is that some artists merely imitate old unapproachable examples, while others foolishly try to execute oil painting with a material limited in its nature and requiring conventional treatment. Mr. Oliphant says, to remedy these evils no customer should

purchase windows on which the paintings are not well drawn and composed, harmonious in colour, with low and well discriminated relief, that should not destroy the flatness of the surface."

32. At the period of the Renaissance, glass-painting had brought in a style which was at variance with the very principles on which it had been based. It had then assumed the right of representing "*paintings*;" and going out of its province it presumed to take the place of panel, of canvas, and of the fresco wall. It mistook its powers; and, after all, the painted glass window only became a transparent blind. No greater mistake can be imagined than the attempt to make a large picture on a translucent material. Our faces, our landscapes, and our buildings, are not translucent; and glass cannot give aerial perspective, which is a necessary condition in such a work. The province and object of a glass window in a church are not to present a copy from nature, but to be simply a portion of the general decoration. However well the *imitation* of a large "*painting*" may be made on glass, it is at best not a picture, but the imitation of one, as any other conventional substitute may be. We are sometimes surprised at the ingenuity displayed in making a picture of pieces of coloured cloth or paper, or by some other clever deception: we wonder at, and applaud, the *resemblance*; but we are not expected to look on it as a "*painting*," and if this were asked of us we should maintain that, however ingenious, it had failed to fulfil its conditions, or attain to the high level to which it aspired.

The colours may be most splendid; they may impart to costumes, jewellery, and fancy ornaments the most brilliant effect; and the composition of the subject may be faultless; still the translucent glass window will only merit admiration as painted *glass*; and I cannot subscribe to the opinion that any painter of eminence, "on witnessing the effect produced by the richness and brilliancy" of those "of the 15th century" at Florence or elsewhere, "when the sun shone through them, would be

tempted to throw away oils in despair." This admiration of a false principle has unfortunately become too prevalent with some persons at the present day, and we are therefore frequently horrified by some large "*painting*" on glass in our London churches, made worse by discords of colour, and by being contrasted with a whitewashed wall; the whole window too cut into squares by monotonous parallel and cross lines passing over the figures and their drapery, having the aspect of a prison or a cage, with a badly coloured landscape in the background.

33. When in the 1200 the medallion was placed on the coloured ground, it was not as an independent picture, but as a portion of the ornamentation of the window, and was conventional. It was subservient to, and part of, the general effect, and was not there for itself, but for the whole subject of which it was an accessory. It is on this same principle that we tolerate small figures of cupids, animals, chimeras, and other conceits in an arabesque scroll pattern; they are not intended to be representations of such objects, but are only part of the ornamental pattern; and we look upon them simply as conventional.

Labarte (in his admirable "Handbook of the Arts of the Middle Ages"*) makes these very just remarks: "The chief merit of the windows of the xii. and xiii. centuries, . . . is their perfect harmony with the general effect of the edifices to which they belong. . . . In the middle of the xv. century the revolution in the art of painting upon glass was complete. . . . Thenceforth glass was nothing more than the material subservient to the painter, as canvas or wood in oil painting. Glass-painters went so far as to copy upon white glass, as upon canvas, the master-pieces of Raffaello, Michael Angelo, and the other great painters of the Italian Renaissance. . . . We also find entire windows painted in mono-chromatic tints. . . . But the era of glass-painting was at an end. From the

* Pages 70, 75, 76.

moment that it was attempted to transform an art of purely monumental decoration into an art of expression, its intention was perverted, and this led of necessity to its ruin."

34. The object in a coloured glass window is to obtain an effect from its appearance as a whole, when seen at some distance, not to derive its merit from the beauty of its figures; but still the figures, wherever they are introduced, should be good, and bear inspection on a near approach. For when, at the present day, the practice of introducing them in medallions, or elsewhere, is adopted in our windows, we are not bound to imitate the faulty drawing or the inelegance of the figures of an early period. Had the designers of those days been able to draw them well, they would have done so; incapacity, not choice, compelled them to make them faulty and rude, and we are not, therefore, bound to copy them in this particular. But we need not introduce modern or inappropriate costumes; we should rather maintain the early character of the subjects and draperies of the figures, while we abstain from making the temple at Jerusalem, the palace of Pharaoh, or the cities of Canaan, Greek or Roman; and Joshua, or other ancient military personages, need not be in armour of mediæval times.

It is not necessary to have any anachronism either in architecture or in costume. But in the *conventional colouring* of these ornamental designs we may follow the old glass-painters. They understood the art, and they very properly suited the colours to the general effect of their windows, which at once shows they considered them not "*pictures*," or real representations of nature, but simply *ornamental*. They used a blue, a red, or any other colour, according as it was wanted; and the Prodigal Son is seen feeding yellow, red, green, and blue boars, according to the requirements of the coloured design. Respecting the excellence of the figures, Mr. Whinston says, "if glass-paintings, whose drawing so much resembles the antique, completely

harmonise with the buildings of the 12th and 13th centuries, would not other glass paintings equally harmonise with such buildings, whose drawing should more exactly resemble the antique in point of excellence? I say in point of excellence, for I totally disclaim any intention of recommending the *substitution* of copies of classical draperies or ornaments for mediæval ones, or exchanging the individual character and strictly human as opposed to God-like expression of the countenance which distinguish Christian art for the more generalised and conventional treatment of the antique. I wish to see the Christian sentiment *elevated*, but not *obliterated*, by a study of the antique, and the mediæval drapery drawn as the mediæval artist would have drawn it had he possessed the power of the Greek." We are satisfied in most cases to copy an old style of architecture, because it is difficult to invent a new one of equal beauty, and if a new style is to be introduced this can only be done by degrees; so too we may be guided by the taste of a good period in glass, though it is not necessary to imitate all its imperfections, as well as its beauties.

35. In a work entitled "Hints on Glass-Painting,"* are some judicious remarks on "the true principles of glass-painting;" and though I cannot agree with the author in the preference he gives to glass of cinque-cento time, with its "picture or scene represented under a canopy or bower, or beneath an archway," I subscribe to his opinion when he says, "The capabilities of some kinds of painting are greater than those of others; but whichever an artist has occasion to adopt, it is evident that his efforts should be confined to a skilful application of the means it places at his disposal. He should endeavour to develop its resources to the fullest extent, but he ought not to seek excellencies which are incompatible with its inherent properties. Failure must necessarily result from an attempt to produce, in one mode, effects which are only

* "By an Amateur," ch. ii. sect. 2, p. 238.

attainable in another." And for this very reason it is inconsistent to attempt to make a *picture* on a material which, while it is suitable for ornamentation, cannot assume the place of panel or canvas. Indeed the maxim I here uphold is quite in accordance with what he afterwards says, that "the artist who undertakes to practice glass painting should bear in mind he is dealing with a material essentially different from any with which he has hitherto been familiar." . . .

"The chief excellency of a glass painting is its translucency. A glass painting, by possessing the power of transmitting light in a far greater degree than any other species of painting, is able to display effects of light and colour with a brilliancy and vividness quite unapproachable by any other means. On the other hand, this same diaphanous quality is the source of certain defects, such as the limited scale of colour and of transparent shadow observable in a glass painting, of which its inherent flatness is a necessary result. These peculiarities will be found to restrict the successful application of glass painting to a particular class of subjects."

"Another peculiarity of a glass painting, which has the same tendency, is its mechanical composition. Lead-work and saddlebars . . . are essentially necessary for the support of the glass; . . . and in whatever manner it may be arranged" the metal-work "causes the picture to be traversed by a number of black lines."

"These remarkable features of a glass painting, then, render it unfit for the representation of certain subjects. Such as essentially demand a picturesque treatment are better suited to an oil or water-colour painting than to a glass painting, the pictorial resources of which are more limited. A glass painting is incapable of those nice gradations of colour, and of light and shade, which are indispensable for close imitations of nature, and for producing the full effect of atmosphere and

distance. And even if this defect could be overcome, the lead, or other metal-work would infallibly ruin the picture. For these reasons it would be improper to select a landscape, for instance, as the principal subject of a glass painting. A subject of this description, though it might form a valuable auxiliary as a background to a design, would, if executed by itself, only betray the defectiveness of the art in its flatness and want of atmosphere. The same objection equally applies to long perspective views of interiors, and the like. To these may be added groups of figures, or even single figures, requiring a great display of foreshortening: and compositions which do not simply consist of figures confined to the foreground, but comprise distant groups carried far into the background of the picture.

“The subjects which appear best suited to glass paintings are those which, when executed, are of themselves pleasing objects, and are favourable to a display of the translucent qualities of the glass. Of this kind are ornamental patterns, and a variety of other designs capable of being properly represented in a simple, hard, and somewhat flat manner; by broad masses of stiff colouring, hard outlines, and vivid contrasts of light and shade.”

I cannot, however, agree with him, that a subject like “The Raising of Lazarus, by Sebastiano del Piombo, in the National Gallery, would form, with a little modification, a good design for a glass painting;” but rather coincide with him in this opinion, that, “in order to render available the translucent quality of glass to the utmost extent under every conjuncture, the artist should adopt the mosaic system of glass painting; because, under this system, the most brilliant and powerful effects of light and colour can be produced. . . . Whether it is white or coloured, it is equally transparent; . . . hence, *cæteris paribus*, a mosaic glass painting, the whole of whose basis is equally transparent, must be more diaphanous

than an enamel, or mosaic enamel glass painting; the ground-work of which is of different degrees of transparency. . . .

“It may be said that the mosaic system does not possess so extended a scale of colour as the enamel system;” . . . but this inferiority “is more than counterbalanced by its superiority over the enamel in strength of colour and . . . in point of brilliancy.” It may “be urged as an objection against the mosaic system of glass painting, that the employment of a separate piece of glass for almost every colour of the design renders the use of harsh outlines throughout the picture unavoidable, and, consequently, that it is less favourable than the enamel system for pictures. But this objection does not appear to be well founded. It has been stated that no glass painting, unless it be of very small dimensions, can be constructed without the aid of metal-work, and that wherever metal-work is used there will be the appearance of black lines. To this law an enamel glass painting affords no exception: if of huge dimensions it must be composed of many pieces of glass, and these must be secured in their places either simply by means of leads, or in a metal framework. The construction of the work does not indeed require that the leads or metal framework should follow the course of the outlines of the picture; but this is practically the only difference between an enamel and a mosaic glass painting. The black lines cannot be got rid of.” . . .

“The construction of a mosaic glass painting appears indeed to be, on the whole, more favourable to the effect of the picture than that of an enamel glass painting. For the lead-work, being generally and pretty equally diffused over the whole design, is on that account less noticed than if its course were confined only to a few particular outlines. I may also add that the colouring and execution of a mosaic glass painting greatly tend to disguise the lead-work.” . . . “I think I am justified in concluding, that the mosaic system

of glass painting is, on the whole, the best system to be adopted."—(pp. 245 and 268.)

By the "mosaic system" I suppose he alludes to that which was in vogue during the 1200, when the patterns were combined with medallions, as at the Sainte-Chapelle, at Auxerre, Chartres, Bourges, Sens, and other cathedrals; as he says they were "employed in this country from the earliest period at which painted glass is found;" and as he notices "French medallion windows of the twelfth and thirteenth centuries."—(pp. 33, 34.) These, he very properly observes, were "undoubtedly the most interesting" of the "three principal classes of coloured windows in this (the early English) style"—the "medallion, the figure and canopy, and the Jesse windows;" and with this preference for the medallion windows I fully concur. For the medallions, themselves one of the conditions is, that the drawing and composition of the figures should be good, even though subject in their *colour* to conventional rules. But we must not have large *pictures* on glass, as they sin against the very principle of this kind of ornamentation, and assume a place to which they have no claim.

36. I should extend the subject too far if I were to enter into the question of the form and proportion of windows and their arrangement; or attempt to show how some, even in France and elsewhere, fail to fulfil the proper conditions of *vitrochrome* decoration, especially during the 1400 and 1500 (without coming down to more debased times); I cannot, however, omit to mention the error in several circular windows, of making its lights, or the patterns on them, concentric instead of radiating from the centre; nor can any excuse be found for placing a disproportionately large rosette in the upper part of a window over a series of *short* upright lights, such as are seen in the north transept of Sens Cathedral. Nor is that of the south transept much less faulty in propor-

tion. They are both of the Flamboyant style. I may also notice some good and some faulty specimens given in those two grand works,—“*Monographie de la Cathédrale de Bourges*,”—and Lasteyrie’s “*History of Glass*.” Of the former, I may cite the medallion windows in Pl. IV. VI. VII. XII. XIV., as well as *Étude* XI. fig. 4, from Sens, giving the History of the Prodigal Son; though in this the colours are not all quite accurately copied.* Pl. X. gives another specimen of medallion glass, but in that plate it has a heavier appearance than in the original; I may also mention Pl. XII. and XIII. and others; and in the mosaic borders are some good combinations of form and colour, especially in those marked 8, 4, of Cologne, Mans, Troyes, Angers, Châlons, St. Denis, and Lyon. In the mosaic grounds marked “*Mosaiques*,” Pl. E, fig. 2 is far too green, as are 6 and 8, which have a disagreeable effect. In the Pl. G they are very faulty, and are of later date, from Strasburg and Friburg; but in Pl. K they are of a better style. In Pl. II. they are also good; but in the “*Mosaiques*,” Pl. F, from Soissons, &c., the medallions with mere patterns and without figures are very objectionable.

In Lasteyrie, Pl. III. and IV. are the old windows of St. Denis, which are very interesting from being the earliest known specimens of figures in medallions, and present an instance of the arrangement of the red lines crossing a blue ground with a yellow dot at their junction. The three upper medallions of each window, having patterns instead of figures, appear to be of a different date. In Pl. XVI. is another medallion window, from Tours, “of the XIIIth century,” of good design; and in Pl. XXIX. is another early medallion window from the Sainte-Chapelle, but this has a fault in the want of variety in the forms of the medallions, and the recurrence of the same

* The scene represents the feeding of the pigs, &c.; and the colours in these plates are generally wanting in richness compared with those on the glass.

circles throughout the four lights is tiresome to the eye. Nor is the distribution of the small pictures in regular squares or panes, in another window (Pl. LIV. of 1461 A.D.), an agreeable one; for though the colour is good, and each compartment has its own subject, the want of variety in the forms gives it a monotonous effect. Pl. LXIV. is an instance of faulty arrangement as well as of bad colour, the subject being the Garden of Eden continuing across the six lights; and Pl. LXX., a scene from the Apocalypse, is offensive both in colour and arrangement. In another work, "*Vitreaux de la Cathédrale de Tournai*," are some glass windows of merit, but though good in design and colour for that particular style and period, they have the fault of being pictures upon glass, and of having the subjects interfered with by the construction of the window. This is the usual objection to the best specimens met with in the Netherlands; and when, as at Brussels and elsewhere, they add faulty colouring and ponderous designs, they are still more opposed to the true principles of the painted glass window.

37. Among the many conditions of coloured glass windows I may notice the following: that they should be subservient to the general ornamentation, their object being decorative; they should assimilate to, and aid, the decoration and style of the building; they should not be a contrast to a white wall; nor pretend to be a painting or large picture; the small figures in the medallions, though conventional, should be good, not imitations of a rude style, and should be part of the coloured effect of the window when seen at a distance: broad opaque shadows should not be introduced, nor an attempt be made to convert the flat into a round style: figures larger than life should be avoided as injurious to the proportion of a building: no great expanse of one colour in one place should catch the eye; and a picture extending over two or more lights, cut by an opaque mullion, is incon-

sistent and offensive. A quantity of white glass is bad and poor, and yellow is better than white for preventing red and blue from appearing purple at a distance. The border should be in proportion to the size of the light; too small, and even too large a quantity of ground between medallions should be avoided; the medallions should not be all of the same form, and the patterns should not be too small, nor have a spotted appearance as in a kaleidoscope; the primary colours should predominate over the secondary and tertiary; and the best windows for imitation are those of the 1200. In rosette windows, the tracery lights, or openings, should radiate from the centre, rather than be concentric. But coloured glass is not required in buildings of the Renaissance style.

38. I have shown that in former times, England was neither prejudiced against the employment of colour, nor was deficient in the due appreciation of it. She was then fully persuaded of its importance as an ornamental accessory (even in architecture); and now that the same conviction is gaining ground, it is most important that the subject should be properly understood, and that we should seek the same result from the employment of colour which has been attained in those countries where it has been practised with the greatest success. This is to be done by careful observation, by the education of the eye, and by studying those examples of good combinations which may serve to form our taste; and it is only when experience has thus been acquired that rules can be laid down for combining colours consistently with true harmony. The same facilities may then be afforded for obtaining harmony of colour, which rules in music afford for producing the harmony of sounds.

39. The perception of the concord of colours, as of sounds, is to some persons a natural gift; and those who possess it can no more help perceiving at first sight whether their arrangement forms a concord or a discord, than they can help dis-

tinguishing red from green, which those whose perception of colour is imperfect cannot do. To *give an eye* for colour is no more possible, as I have before said, than to *give an ear* for sound; and though both may be improved by study, if *possessed*, so both may be impaired by bad habit. No effort will *create* a natural gift, as no rules will correct the defective vision called "colour-blindness," which confounds a colour with its accidental one. And so common is this defect in England*, that one man in every seven hundred and fifty is said to be colour-blind, *i.e.* unable to distinguish a certain colour from another, as red from green. And the fact of these two being so often confounded, makes the custom of having red and green lights for opposite signals on board our steamers and on railway lines reprehensible and dangerous. For by those who have defective vision no two colours are so generally confounded as red and green, and to such a degree that a soldier's red coat and the grass of a field, and strawberries (or cherries) and their leaves, appear to them to be of the same colour. Nor is it always the accidental that is mistaken for its complementary colour: some confound orange with grass-green, and yellow with light-green; and others see "indigo and Prussian blue as black," and pink as pale blue. But black and white, which are accidental to each other, are not confounded. †

* Women are supposed to have this defect in a minor degree than men.

† In the Proceedings of the Royal Society, vol. viii. p. 172, Mr. Pole refers to Dr. Wilson of Edinburgh, who says there are three kinds of colour-blindness. "1. Inability to discern any colour but black and white. This is very rare. 2. Inability to discriminate between the nice distinctions of colour, so common as to be apparently rather the rule than the exception. 3. Inability to distinguish between any of the colours most marked to normal eyes, and its most complete form is what is called dichromic vision, being total blindness to one of the three primary colours. In this last, according to the symptoms exhibited in different cases: 1st, blue and yellow are perfectly distinguished: 2nd, almost all colour-blind persons think they see red, but it is frequently confounded with green (the most common mistake), black, orange, yellow, brown, blue, and

Defects like these cannot be overcome either by study or by rules. But though study and the contemplation of good examples will not remedy such defects, nor *give* at once a true *perception* of the harmony of colours even to those whose vision is not defective, still they are very necessary for their instruction, as they might otherwise continue to be unable to distinguish between a concord and a discord, from the want of that natural gift. Again, those who do possess that natural perception may not always be able to *combine colours*, though they may readily perceive whether colours are or are not harmoniously united in a composition; as any one with an ear for sound may detect false notes without being able himself to arrange any in an air. But the first and indispensable condition in furnishing examples, or rules, is that the subject should be thoroughly understood; and the required knowledge can only be derived from a natural perception of the harmony of colours improved and matured by observation.

40. In examining into the *effect* of colours, we have to inquire what it is when presented to the eye, not what it ought to be according to this or that theory; and nothing will be understood on the subject unless the eye is first allowed to be the judge. It is the perceptive faculty which is to be appealed to, and we must begin by ascertaining certain facts

violet; crimson and pink appear to have no relation to scarlet: 3rd, green is a most perplexing colour, it is not only confounded with red, but with black, white, or grey, orange, yellow, blue, violet, and brown: 4th, violet is confounded with blue and grey, and orange with yellow: 5th, more difficulty is manifested with light or dark tones of compound colours than with full ones." It is certainly remarkable that while blue and yellow are seen perfectly well, their effect should be so different when combined together as green; and this is explained by the white of the colour-blind person being green, one of the three elements (red) being wanting to him, and he having only blue and yellow to produce his white. Green is therefore no colour to the colour-blind. He has only two sensations of colour, blue and yellow. Red and green are then, both, shades of yellow.

as to the colours that suit each other; leaving the reason *why* they do so to a future occasion, when we have mastered the facts. It matters little for the harmonious combination of colours *why* blue and yellow form green, we want to ascertain how various tones of green accord with other hues; and when we have determined the proper combination of these and other colours we may speculate on their natures, or on the reasons, at our leisure. It is this endeavour to explain some irrelevant question, and the desire to build a theory on certain remarkable properties that have appeared during the inquiry, which have led to the unfortunate blunders about accidental colours and their necessary harmony, whereby many who have no eye for colour have been persuaded to adopt the most disagreeable discords as harmonious concords. The argument has simply been that they *must* agree, because they *ought* to do so.

41. But while I express a disapprobation of certain *theories*, I must repeat my disclaimer of an intention to offer any of my own; and if I object to any other opinion, it is not from a desire to find fault, but from a sincere wish to see our taste improved, and to second the efforts made to promote it which reflect so much credit on their authors; and judging from their results and the improvement now taking place we may feel convinced that by proper instruction and encouragement the English are capable of producing works of merit in ornamental design as in every branch of art. I do not pretend to lay down rules for colour or dogmatise in any matters connected with taste; I merely seek to direct attention to those subjects, and to urge that nothing should be done without a purpose and a thorough understanding of the means of obtaining success. I do not presume to teach or dictate, but rather recommend *inquiry*: that every thing may be done with a reason, and every opinion be the result of *thought*. The habit of *thinking* for ourselves, particularly in matters

of taste, is a great desideratum; and it is refreshing to hear an original remark from those who, in looking at objects of art, express their opinion without reference to some hackneyed one daily repeated without inquiry or conviction. Even if wrong, it may have its use; and at all events the original thinker will occasionally suggest a valuable idea, which is not to be obtained from one who is satisfied with a borrowed criticism. Instances of this might be cited in the opinions of some who, though biassed in their views, and seeing excellence only in a particular style, yet do, from their originality of thought, offer many most valuable suggestions.

42. In the combination of colours there are some which, being contrasts, set off each other, and materially heighten their effect; while others, again, decrease it. In both cases their effect depends greatly on their relative proportions; and such is the influence of proportion, that colours which suit each other in one instance will sometimes have a disagreeable effect in another, where the quantity, or even the tone of one is too great or too little for that of its neighbour. And a similarly inharmonious character will be given to a whole carpet, or other coloured object, when the hues which compose its design offend against those conditions. This *balance* of colour must always be attended to; for it is on this, as well as on the suitable juxtaposition of colours that harmony depends.

43. The first step in studying the harmony of colours, is certainly to ascertain what two, or more, when placed together are concords or discords. But this is not all that has to be determined. The quantity of each must also be regulated, as well as their proper position; and the same set of colours put together in different proportions and positions will have a different appearance. Colours also borrow from each other, and thus mutually change their effect; while others heighten each other's power by contrast; and others soften, or diminish

it. Thus blue and red have a very different action on each other from green and red; as these last have from blue and orange; though in the two last cases the colours green and red, and blue and orange, are accidental to each other. Blue and orange, which are accidental colours, are a harmonious contrast; but red and green, or yellow and purple, are not *necessarily* so *because* they are also accidental colours. (See Sect. VI.) We must therefore understand which colours agree by contrast, which by analogy, and which tend to diminish, or otherwise alter each other's effect; for some of these are apt to be confounded, and a very fallacious doctrine has been propounded—that the union of one of the primaries with its accidental colour is analogous in effect to that of the same primary with its two companions; as, for instance, that red with green has the same effect as red with blue and yellow.

It is true that white light consists of all the three, and it is not till it has been decomposed that they are distinctly and separately presented to the eye; but in looking at white light we do not distinguish the red, blue, and yellow; otherwise, a white glass window might pretend to the possession of the three colours. No one, however, will allow his fancy to go so far as to imagine that in white he sees the three primary hues; and yet it is not more inconsistent than to consider green the same as blue and yellow, or to say, as some have, that when green is put with red we then have the three primary colours—we have in reality one primary and one secondary; and to show the difference of the effect of two colours when used singly and when united as a compound or secondary, we need merely place red and yellow with green, and orange with green; the former an imperfect, the latter a very harmonious, combination. (See Sect. XVIII.)

It is to the *eye* that the several colours must distinctly appear. It is not enough to know that *theoretically* they are all there; and green is not only to the eye a new colour,

quite distinct from blue and yellow, but has a very different effect in combination with other colours from that produced by blue and yellow. Such a theory might obtain for the mono-chrome taste of churchwardens the credit of using all the primaries in the whitened walls for which our churches are so remarkable; but our sensations tell us the monotonous truth.

44. The great point in ornamenting with colours is to keep them distinct; and to seek *effect*, not *confusion*, from their combinations; and the necessity of enabling the eye to see the colours separately and distinctly may be illustrated by placing red, blue, and green together, when the red and blue in juxtaposition have the appearance of purple, which is a discord with green; whereas, if a yellow fillet had been interposed between those two colours they would have been kept distinct, and what has become a discord would have been a harmonious combination. When the red and blue are in small quantities, as, for instance, in narrow lines, the purple effect becomes more evident, particularly when viewed from a distance; and we not unfrequently see instances of it in our modern stained glass windows. But though red and blue in juxtaposition have the appearance of purple, and yellow placed next to red gives it an orange hue, the same illusion is not caused by the contact of the other two primary colours, blue and yellow; and these do not look green when in juxtaposition, except in certain cases. Nor is the change then so marked, as when blue and red, or yellow and red, are in contact. And this is one of many proofs that *all* the three primary colours are not under the *same* conditions in relation to each other. It is not, therefore, necessary to lay down the same general and *invariable* rule respecting the three primaries: that "in making new patterns or ornaments, red and blue should not join, nor yellow and red, nor yellow and blue," as though the three combinations were exactly

similar, and subject to the same laws. For yellow and blue do not deceive the eye to the same extent as the others, when in juxtaposition. Nor has red with green the same effect as red with blue and yellow; and still less have red blue and yellow the same effect as these three colours when united in one.

A difference will also be caused by the relative qualities of the two colours, as well as by the presence of others; and yellow placed between red and blue (in juxtaposition, therefore, with both of them) is not only agreeable, but is necessary, as before stated, for keeping them distinct, and completes the harmony of the three primaries.

The difference of effect produced by green and blue with red is well known to those who have fire-coloured hair; and experience teaches them that green softens the force of red. Blue, on the contrary, being a contrast to red (particularly to scarlet and fire-red, as well as to orange) sets it off; and women with red hair are justified in their habit of diminishing its intensity by the other more suitable colour. In ornamentation this is not our object. We want to show, not to hide, the colours. We wish to brighten, not to diminish, their effect. Great quantities of green, therefore, deaden the reds of a carpet or a wall, by depriving them of their full effect, and by interfering with the balance of colour on which harmony so much depends; since by taking away from the reds some of their due power, these no longer bear the same proportion to the other colours in the design. The same applies to all colours which have a *reciprocal effect* on each other. Whatever diminishes their effect is contrary to the spirit of ornamentation; it disturbs and even alters altogether the relative powers of the various colours. For a colour so affected ceases to be the same it really is. Thus a black next to a red, or to a green, or between two of these, ceases to appear really black; it becomes of a dull, or a russet, hue; and

the red and green each lose part of their own colour and effect. Introduce a white or a yellow next to the black, and this last regains at once its own hue; it is once more really black by the assistance of the reviving *contrast*; but if its legitimate effect be taken away, it has no longer the power of maintaining the place it ought to have in preserving the balance of colour with its surrounding companions. The differences between a *neutralising** effect, harmony by contrast, and other harmonious unions of colours, are sufficiently obvious; and nothing shows them better than the juxtaposition of such colours as black and red, or black and green, which really do *neutralise* each other, or lessen each other's effect; and that of black and white, which *contrast* with and set off each other; and that of blue, red, and yellow, which *harmonise* with, and set off, but *do not neutralise*, each other. It is precisely this neutralising power of a colour, when in juxtaposition with some particular one, which requires it to be used in such a manner as not to interfere with its neighbour; and some, as greens, when they are to be seen by daylight should be employed sparingly, and with great judgment. This too may be observed of green, that a certain quantity of it *appears to be greater than the same quantity* of most other colours. The most valuable office of the brilliancy of green is to give brightness to a design; and when only introduced in such a manner as *not* to diminish the power of red, it is most effective. But this and other remarks on the application of colours will be noticed in the sequel.

45. Much has been written on the scientific phenomena of colours, which present many most interesting facts; but they have no direct bearing on the employment of colours for ornamental purposes, and the attempts to draw conclusions from them for our guidance in the harmonious adaptation of

* "*Neutralising*" has, perhaps, been used sometimes instead of "*balancing*."

colour only tend to mislead. For the present we only want the results of actual observation and a knowledge of the proper combinations of colour derived from the experience of those who possess the true perception of it; and, as I cannot too often assert, it is the eye which is to be consulted as the proper judge of what it sees.

46. But before entering into the question of the combination of colours, it will be necessary to classify them, and to determine the application of some at least of the terms used in distinguishing them.

The *primary* colours are three: blue, red, and yellow; and not all those of the prism, or the rainbow, which some have denominated "primitive colours," including the intermediate derivative colours, purple, orange, and green. Colours then may be classified in this order:

- A. PRIMARIES (*Simple colours*): blue, red, and yellow.
- B. SECONDARIES (*Compound colours*): purple (composed of blue and red); orange (composed of red and yellow); and green (composed of blue and yellow).
- C. TERTIARIES (*Mixed colours*): russet (composed of purple and orange); citrine (composed of orange and green); and olive (composed of green and purple).
- D. (*Irregular colours*): browns, greys, neutral tints, drabs, stone-colour, &c.
- E. (*Extreme colours*): black and white.

Mr. Field, in his admirable work on this subject, gives the proportions of these colours, according to the scale of his chromatic equivalents: as "I. 3 yellow, 5 red, and 8 blue = 16; II. 8 orange, 13 purple, 11 green = 32; III. 19 Citrine, 21 russet, 24 olive = 64;" and consequently "red 5 is equivalent to green 11, yellow 3 to 13 purple, and blue 8 to 8 orange." Newton, as I have before stated (pp. 5, 10), gives the

proportions of the colours of the rainbow—supposing the whole to form 100—red 11, orange 8, yellow 14, green 17, blue 17, indigo (or purple) 11, violet 22. This last division I shall consider in noticing the secondary colours.

A. The first division of the three primaries is the most simple and intelligible, though still it is necessary to determine exactly what are blue, red, and yellow, since each colour is composed of different *hues* and *tones*; and the mere name of a colour is otherwise indefinite.

By blue should properly be understood (as by the other two) that colour which appears in the prism, when light is decomposed by it; but it is necessary to describe these and other colours, as the names of most of them are very conventional.

Blue may be considered equivalent to that of the deepest coloured sky (or to lapis lazuli, or a French blue); not what *we* call sky blue, but the colour of the sky in those southern climates where the atmosphere is clear, and where it appears to the eye an intense bright blue. What it is in an exceptional case, when the atmosphere is foggy, it is unimportant to consider; nor is it necessary to examine the question of the sky being really white; nor even to inquire into the reason of its blueness from the reflection of the blue ray, which takes place so readily in meeting with a medium of a different density; nor why some shadows are blue instead of black. These have no bearing on *arrangement* of colours, nor even on their nomenclature; and the decomposition of light, and various optical phenomena, interesting as they are, have no connexion with the question now before us.

It is not always easy to determine what the exact tone or even hue is, when we mention some colours; and it is therefore necessary to agree as to our meaning when speaking of any one. *a.* The blue of the sky, then, is the one to which the name blue most properly applies. It was evidently that

adopted by all southern people, and in looking through a broken part of the coloured ceiling of an Egyptian temple you perceive, where the colour has been well preserved, very little difference between it and the sky. With regard to the colours we use, lapis lazuli, or French blue, may be said most properly to represent blue; and the former has the advantage, as Mr. Field has shown, of being more durable than cobalt blue, which tends to greenness, though it has the power of resisting the sun for a long time.

b. Red is not so easily defined. It has been called the colour of the ruby, of the carbuncle, of blood, of the red-currant, or of a red-ochre, all which are somewhat dissimilar. The particular hue may therefore be taken either from that most generally used in olden times for ornamental purposes, or from that of the rainbow. It will suffice that it be one of the known reds, and provided we fix on the exact hue we mean, whenever it is mentioned no mistake can occur. Those which are generally called red appear to have too great an approach to a crimson; and without pretending to decide whether the colour of the carbuncle or any of the above has the best claim to be considered a true red, I would suggest that the colour of the original *Verbena Melin-drus* is one of the purest types.

When the primaries blue, red, and yellow are combined, they produce a perfect concord; but when the yellow is wanting, scarlet accords far better than red with blue; and they do not assume the same false purple hue by their juxtaposition, owing to the yellow in the scarlet. When, therefore, blue and red are the only two colours placed together, the latter should give place to scarlet, which too is almost always preferable to pure red for ornamentation. But when blue, red, and yellow are in juxtaposition, red, or rather crimson has a very rich and satisfactory effect.

c. Yellow has been represented by "gamboge moistened

with water:" but the particular hue of yellow, blue, red, crimson, and scarlet, and some other colours, implied whenever I mention them, may be seen in Plate III. fig. 5. Yellow, Mr. Field remarks, "is less diminished than all other colours, except white, by distance," and has a great power of reflecting light. It displays itself very evidently in all the varieties of bright green and orange; and the hues of canary, lemon, buff, drab, chesnut, and various light browns, tawny, hazel, and others, are chiefly indebted to it for their composition as well as for their brightness.

To this first class, some have added black and white; extending the number of the primaries to five; but their not being among those of the prism may exclude them from a place both in the first and second class.

Mengs observes, that "colours properly speaking, are but three," yet "as we cannot do without black and white," he adds these to the primary colours, and extends the number to five; and Leonardo da Vinci says, "the first of all simple colours is white, though philosophers will not acknowledge white and black to be colours, because the first is the cause and receiver of colours, the other totally deprived of them. But as painters cannot do without either, we shall place them among the others: and according to this order of things, white will be the first, yellow the second, green the third, blue the fourth, red the fifth, and black the sixth." It is, however, inconsistent to admit green, and exclude purple and orange; and Mayer and others are right in limiting the number of primaries to three: blue, red, and yellow.

B. The secondaries are compounds of any two of the three primaries; of blue and red; of yellow and red; or of yellow and blue: making purple, orange, and green. But it is not easy to define their exact hues unless we limit them to the product of *equal* parts of two primaries; and for these, I must again refer to Plate III. fig. 5, and to Sect. XIX.; which

will show the character I ascribe to each. All we require is that it should be fixed; and I shall have occasion to notice the names applied to them, in mentioning "Werner's Nomenclature of Colours." (*See below, p. 91.*)

There is, indeed, great uncertainty respecting the exact complexion of most colours in other languages as well as in our own. What, for instance, can be more indefinite than the name of purple, the tones of which vary according as they contain more red or more blue? What again do we understand by the name "violet colour?" Some consider it to be composed of equal parts of one kind of red and blue; others, to be that of the violet flower, though the name is as indefinite as the colour of the flower itself; all which tends to show how necessary it is to define the nature of each colour, and of the hue of which we speak; and how uncertain must be the impression conveyed by the name of any one, unless we determine the sense in which we use it. Again, in other purples, the porphyry has more red, the lilac more blue; and we must distinguish the various sub-tones as well as tones, by qualifying them as red-lilacs or blue-lilacs; red-violets or blue-violets, &c., as by other specifications of their different intensities. Of the imperial purple I shall speak presently. Similar gradations exist in orange and in green; according to the greater proportion of red and yellow in the former, and of blue and yellow in the latter. The claim of these three to be secondary colours is their being each composed of two only of the primaries, and to their being in the prism; and browns and greys, ranked with them by Hundertpfund and some others, can only hold a place in a distinct class.

The prismatic colours dissolve so insensibly into each other, and form a succession of hues so finely graduated, that it is not possible to perceive the exact limit of each*; but in

* In the rainbow and the prism red and violet are the two outermost colours; and "the red shades off by imperceptible gradations into orange,

enumerating the secondary ones, there seems to be no reason for subdividing one of them, as the purple—into two, “purple and violet;” one of these being a *gradation* of the secondary colour composed of red and blue, instead of the *one result* of that union. Though it has been determined by philosophical experiments that the prism, or the rainbow, contains seven colours, it is much more simple for practical purposes to confine the number to six, viz. the three primaries and their three intermediate compounds. Indeed, if two be admitted between red and blue, two should be admitted between red and yellow; and also between blue and yellow; which would increase the number to nine. The actual number, however, is of little importance in the *use* of colours; a more essential point is to define the character of each, that we may understand what we mean in mentioning its name; and that, in speaking of a red or a yellow, we may not convey the idea of a pink, or of a canary-colour.

Experiments which prove that the prismatic colours are “red, green, blue, and violet,” or according to Dr. Young, that “red, green, and violet are the fundamental colours,” and that “the perfect sensations of yellow and blue may be produced, the former by a mixture of red and green, and the latter by green and violet,” can be of no use in the harmonious combination of colours for ornamental purposes; nor can any observations on the relative position and quantity of colour resulting from philosophical speculation be taken as guides in polychrome decoration.

orange into yellow,” and so on with the rest. For a body to exhibit truly its colour it must be placed in white light. “A red wafer,” as Brewster observes, appears red in the white light of day because it reflects red light more copiously than any of the other colours. If we place a red wafer in yellow light it can no longer appear red, because there is not a particle of red light in the yellow light which it could reflect.” In like manner any other coloured body reflects the rays corresponding to its own colour. “The colours therefore of bodies arise from their property of reflecting or transmitting to the eye certain rays of white light, while they stifle or stop the remaining rays.”

C. The tertiaries have also been reckoned as three: russet, citrine, and olive.

D. But there are others which require to be arranged in a separate class distinct from the primaries, secondaries, and tertiaries, as browns, greys, and various neutral tints (into which black often enters as a principal element), together with clay and stone colours, drab and others. These necessarily form a fourth class, and I have called them, by way of distinction, "*Irregular colours.*" They have also received the name of "semi-neutral." Many of them are very varied in their hues. *Browns*, for instance, have sometimes a deep sombre character; others are brighter in proportion as they have more red or more yellow in their composition, *e.g.* chestnut, &c.; and red-browns, yellow-browns, and purple-browns designate certain varieties, all of which hold a place among warm colours. For whenever such a quantity of blue is added as to deprive brown of its warmth, it passes into another grade of hues, and approaches the greys. Of browns, the "chief constituent" is said to be "yellow;" and they are considered to be compounded of yellow and black; of black, red, and yellow; of black and orange; of blue, red, and orange; of the three primaries—red, blue, and yellow; or of the three secondaries, or of the three tertiaries, the richer browns having more red and yellow, and the lighter browns being sometimes diluted with white. But brown is also compounded of red and black; and it is inconsistent to maintain that red does not enter into the composition of brown, and at the same time to admit that it is partly compounded of orange—a colour of which red is a constituent. Again, black and red form a better brown than most of those above enumerated; black and yellow giving a very imperfect brown, and rather partaking of an olive mixture; and a similar objection may be made to blue, red, and yellow, and their derivatives.

Greys are composed of black and white. Other combina-

tions are considered to form them, as blue, red, and yellow, in various quantities according to the character of the required hue, with or without the addition of white: or one of the primaries mixed with its remaining complementary or accidental colour, added to white: as red with green and white; or violet, orange, and green with white; and others. The character of the grey will depend on the excess of one of its component colours; and a black-grey, or a blue-grey, a green-, an olive-, or a violet-grey, will take its tone from the greater quantity of the black, or blue, or of the blue and yellow (*i.e.* green), or of the blue and red (*i.e.* violet), &c. which may characterise it. Another kind of grey, or neutral tint, is composed of purple and black; and other hues may be made with black so as to form various dark greys. As grey is a cold colour, the addition of too large a quantity of the warm red has an undue effect upon it, by altering its character from a cold to a warm hue; as the addition of an undue quantity of cold blue to a warm brown changes the nature of the latter, and brings it into another class of colours. The addition of white has a modifying effect; and while red and yellow, varied in quantity, produce the different tones of scarlet and orange, when diluted with white they give straw, and lemon, and clay colour; and drabs, as well as the lighter browns, are produced by the addition of white to their original basis. Any one of the primaries mixed with white forms a distinct hue, as does the union of any two of them with white; thus, red and blue and white, in different proportions, form varieties of purple, violet, and other mixed colours, varying according to the greater or less quantity of blue and red.

E. *Black and White*.—While some have classed black and white with the primaries, others maintain that neither of them merits the name of colour; black absorbing all light, and reflecting none; and white appearing colourless, though in reality (at least as white light) composed of the three prima-

ries. But this is a philosophical view of them which does not appertain to the question of their employment for ornamentation. Whatever may be their properties, or their *right* to the name of colours, the eye has positive evidence of their holding a place, and having their own effect, when in combination with other colours.

47. The *tones* and *gradations* of each primary, as well as of any other colour, belong, of course, to the same class as its fundamental hue; but the moment a simple colour is mixed with any other, it ceases to belong to the same class; and if it is sometimes the custom to classify crimson, scarlet, pink, and others with the reds, they cannot be reckoned among the primaries; scarlet, for instance, having a certain quantity of yellow mixed with the red, and therefore being a compound colour. It is, therefore, only for convenience' sake, or in accordance with a conventional custom, that we are justified in classing them among the reds.

48. *Accidental Colours*.—The accidental colour to any one of the three primaries, as is well known, is the union of the other remaining two. Thus, green (*i.e.* blue and yellow) is accidental to red, orange to blue, and purple to yellow. Black and white are also accidental to each other. As the simple primary is accidental to the compound secondary colour (red to green, blue to orange, and yellow to purple), so a tertiary, in like manner, has its accidental colour, in the remaining one not forming part of its composition.

Though the existence of *accidental colours* was known before Newton's time, he was the first to make any careful experiments respecting them, an account of which he sent to Locke; but this was not published till 1829, in Lord King's life of that philosopher. The following are among the observations made by Sir David Brewster on the subject of accidental colours. If we place a red wafer on a sheet of white paper, and fix the eye on the red spot, and then turn the eye

to the white paper, we shall see on it an image of that spot of a blueish green colour. And the images of other coloured wafers will be changed according to the accidental colour of each, red becoming a blueish green, orange a blue, yellow an indigo, green a reddish violet, blue an orange-red, indigo an orange-yellow, violet a yellow-green, black a white, and white a black. The accidental colour is what the other wants to make white light, and some style it the "complementary," others the "opposite." The reason of the green image of the red being seen Brewster shows to be, that "the part of the retina occupied by the red image is strongly excited," or "deadened by its continual action." The sensibility to red light will therefore be diminished; "the deadened part of the retina will be insensible to the red rays which form part of the white light from the paper, and will see the paper of that colour which arises from all the rays in the white light of the paper but red," *i.e.* blueish green. Again, "when a black wafer is on a white ground, the portion of the retina on which the black image falls, in place of being deadened, is protected, as it were, by the absence of light, while all the surrounding parts of the retina, being excited by the white light of the paper, will be deadened by its continued action." Hence, the eye "will see a white circle corresponding to the black image on the retina." But it does not therefore follow that any two colours which are accidental to each other should *harmonise* — they may, or they may not; nor is there any necessity that the colours which are intended to convey to the eye the actual impression of several distinct ones harmoniously combined should be of the same quantity as when they are required to make white light.

49. If any effect is to be produced by a polychrome ornament, it must be totally distinct from that of white light, as I have already shown (p. 60). Again, two of the three primaries accord with each other in very different ways. Red and blue,

which are contrasts, have a very different effect in juxtaposition from that produced by the juxtaposition of red and yellow, or of blue and yellow; and because blue accords well with scarlet or with orange, it does not follow that red must accord with green, or purple with yellow. They affect each other differently; for while orange makes blue appear sharper by contrast, green lowers red by not offering the same contrast. Green does not stand in the same relation to red, as orange does to blue. It is therefore a fallacy to suppose that because orange harmonises with blue, green must harmonise with red, or yellow with purple. Besides, much depends on what tone of one is placed in juxtaposition with the particular tone of another; there is one tone of red which approaches towards a concord with a particular tone of green, while some other tones of these two colours are disagreeable and even discordant; and so far from the *blue-green* (which is the accidental colour of red) being the most harmonious combination with it, a *yellow-green* is far more agreeable (*see* below, Sect. VI.); and here, as in many other cases, theory is at variance with fact. (*See* above, pp. 61, 62.)

50. *Harmony of colour* has too often been limited to *similarity* of colour; and Hundertpfund, using the words of Leonardo, says, "harmony requires colours to be of the same nature, contrast being produced by bringing colours in contact with each other of an opposite character." *Contrast* is certainly so produced, but there is also *harmony by contrast*, as well as harmony by analogy; and the term contrast cannot be used in direct contradistinction to harmony. Blue and yellow are contrasts, as Leonardo observes, but red and green, which he also considers contrasts, are opposed to each other under very different conditions. Blue with red is a contrast, but of a very different kind from green with red, which are opposed to each other as *accidental colours*.

There are contrasts of various kinds. Some are opposed

as warm and cold colours; some from other properties; they should therefore be kept distinct, and when the term is used it is indefinite, and apt to mislead, unless the particular kind of contrast is specified. (*See Sect. V.*)

There are then: *a. Harmony by contrast*, as red (and still more scarlet) and blue; orange and blue, &c. Some are contrasts by coldness and warmth, as those just mentioned; some by difference of lucidity, as yellow contrasted with black, or with brown.

b. Harmony by analogy, as crimson and rich brown, purple and crimson, yellow and gold, &c.

c. Harmony of tones, as different blues, or reds, or greens, or purples, or yellows, or oranges, &c.; as where the light one is a ground for its darker companion, in combination with other colours. These differences of tone are useful to lighten up a composition, or pattern, of many colours; and light tones raise, or brighten up, the deeper ones.

d. Harmony of hues, which has much the same property as the last, as verdigris-green introduced to lighten up blue-green in a composition, and scarlet or red-lead colour with dark red, &c.

There are also colours which *diminish* each other's effect, and deaden a neighbouring one; as green lowers the force of red, especially when alone with it, and in the same quantity and intensity of tone. (*See above, p. 62.*)

Others again *raise* the force of those they are combined with, as white heightens the rose of the face; and so does black also; and nothing is more becoming to an Ethiopian than a red turban. White of course increases the intensity of black by contrast, as black adds to the brilliancy and distinctness of white. And though white makes a red face look redder, it increases the paleness of a pale complexion. Black too has a similar effect.

Light colours also brighten those of a deeper kind; as

white, or yellow, put with red and blue, renders these more lively. If intermixed with them it diminishes their depth: thus, yellow when interwoven with crimson gives it an appearance approaching to scarlet; and white interlaced with blue gives it a lighter tone. Some suit each other from being the one warm the other cold, as red and blue, orange and blue, brown and blue, &c.; and yet two cold colours sometimes harmonise with each other, as blue and white.

Harmony may be defined to be the *due proportion* of two, or more, colours, which are concords; and the *balance* of colour is equally required for those which accord by contrast as by analogy. For though the idea of contrast shocks some innocent minds, a little consideration suffices to show that contrast not only in colours, but in forms, and other combinations, contributes most powerfully to the beauty of a composition.

It is true that the gradations in the different hues of the rainbow are most agreeable, but in *ornamenting* with colour it is not sufficient to have them so blended that they shall insensibly melt into one another. The effect of each colour is softened and diminished, which is not the object of ornamenting with colour (though it may sometimes answer in dresses); and blue, red (or scarlet) and yellow look better when contrasted with each other than with the intermediate purple, orange and green. They have a still better effect when black and white are added (*see* Sect. XVII. Blue, C 7, and D 1, and E 2, and F 1), and though blue, red, and yellow form perfect harmony, there are other combinations with a greater number of colours which are even more agreeable for ornamentation (*see* Sect. XVII. Blue, A 1, C 7, and E 2).

What Burnet says of the contrast of warm and cold colours in pictures applies with equal or greater force to their combination for decorative purposes; and he shows, that besides

the necessity for the equilibrium of colours, the warm and cold should be "properly balanced" against each other. "Cool colours (he adds, p. 10) produce a softer influence on the eye than warm, and excite it less," and the use "of a warm colour will increase" the general harmony in a picture, as when red is introduced with "the white, blue, grey, and green in a landscape;" while, on the other hand, the union of warm colours, which "arrest the attention of the spectator in a greater degree, will be increased by the introduction of a cold" one; and "the harmony of a picture composed of white, yellow, red, and brown, is increased by the introduction of a blue." The value of such an arrangement is seen in the hot and cold tints of lights and shades, and in the primary colours of the draperies in large paintings, where red and blue "are often placed upon the same figures to draw the attention of the spectator to such point;" and "notwithstanding we are told by Du Fresnoy and others, 'not to permit two hostile colours to meet without a medium to unite them,' we see from the earliest times it has been the practice of all the great painters; so that red and blue has in a manner become the dress in which from custom we always expect to find certain figures clothed, such as Christ, the Virgin, &c." (Burnet on "Colour in Painting," p. 10.) Nor was the use of blue, red, and yellow confined to any one particular school.

This is the effect of the *harmony of contrast*, and Aristotle says (Probl. 3), "we are delighted with harmony, because it is the union of *contrary* principles having a ratio to each other;" an idea expressed also by Vasari (vol. i. Introd. Pitt. c. iv.)—"L'unione della pittura è una *discordanza* di colori diversi *accordati* insieme." It is this very love of contrast which makes us admire the effect of a long line of water on the horizon seen through a wood of fir-trees; and which taught the builders of all ages the necessity of opposing the vertical to the horizontal line.

It is precisely for the purpose of avoiding monotony that contrast is required. And if variety instead of monotony is to be desired any where, it must certainly be in coloured ornament. The very principle of ornamenting a flat surface is contrast; and it is on this that all mosaic and inlaid work, and every design whose effect is produced by dark and light colours, depend. The dread, then, of the impropriety of contrast may be dismissed; and those who have overcome their scruples about the use of bright colours, may venture a little farther without apprehension, and may tolerate contrast. The taste has been pronounced by some to be "very French;" but our neighbours are right, and there is no fear of revolution in adopting it beyond the very desirable one of improving our coloured designs, and ridding many of a prejudice. For though the French are not good artistic "*colourists*," they are eminently successful in decorative ornament; and here they excel the Dutch as much as these excel them in imitating the colours of nature. And if the combination of brilliant contrasts in decorative ornament will not always suit a picture which represents nature, this is only consistent with the fact that the two subjects should have a different treatment. Colours in pictures do not of course admit of the same contrasts as when applied to ornamental purposes; the mode of using them is also different, and the grey tints as well as shades introduced into a picture prevent the contrast of the different colours being so strong and decided.

Nor are colours even for ornamental purposes to be used in the same way on *all* occasions. Those which would suit furniture, or decorate a wall, might not be adapted for dresses; and colours which suit a lady's toilet, would not always, according to our modern taste, be admissible in the simpler costume of men in the civilised communities of Europe. Colours too which suit one complexion are not always adapted to another. I remember a case which may serve to illustrate this remark. Happening one day to call at the house

of a lady who was a *brunette*, I met there another who was remarkably fair, when the conversation turned on the new mode of fitting up the opera house. The colour selected had been of an orange hue. "How much I admire," said the former, "the colour they have chosen for it." "Do you, indeed," said her light haired friend; "do you not think blue would have been preferable?" I felt quite sure before she spoke what her objection would be; and the reason was equally evident why the other preferred the orange hue; and the same difference of opinion would exist about other colours selected without reference to the taste and requirements of the wearer.

51. I have stated that the names of colours are uncertain and indefinite (p. 68), and in proof of this it is only necessary to ask what idea is conveyed to the mind by the mere mention of a red, or a blue, colour? A scarlet coat is called red; and the term red is applied to a rose, a brick, port wine, mulberries, cherries, and other things of very different hues: the sky, a violet, a slate, and a steel helmet are called blue; puce colour has been transferred to a blue-purple; and the Arabs, who apply "green" to a mouse-coloured horse as well as to a copper-coloured Abyssinian, call jet-black "*blue*;" and their "blue horse" may mean one of jet-black, or iron-grey, colour. In like manner, the Welsh *glas* "blue," or "green," is applied to black (provided it has no brown tinge); and grey is also called "blue" (*glas*).—Hence *glastum*, a name of woad.

It would lead to endless confusion if the names were thus vaguely used in the application of colours; and yet so unsettled is their nomenclature in most countries, that it is often impossible, in reading the description of any object, to form in our mind a true idea of its colour and appearance. Even when we are more particular, and we attempt to point out certain tones which are thought to be well defined, we are not always intelligible; thus the well-known name of purple conveys no positive idea of the colour we mean; and some

persist in calling blue "purple," and a violet "blue;" while others adopt this gradation in the prism, "blue, purple, violet, red;" and another gives "blue, purple, and violet, or indigo." The same was the case of old; and not only has there been a question about the ancient "purple," and the meaning of the Greek *πορφυρεος*, or the Latin *purpureus*, but these two words have had several meanings at different periods; and in the writings of different authors. The *πορφυρεος* of Greek had a very wide range; and it was even used to signify any thing "bright," whatever the real colour might be. Homer uses it for the colour of the sea; the "purpureus (pannus) late qui splendeat" of Horace (A. P. 15) might be of any bright hue; and the white swan was called by him "purpureis ales coloribus" (iv. Od. i. 10). There is no evidence of its name having been taken originally from *πυρ*, "fire;" another word from that root, *πυρρος*, was used for red or scarlet (as by Herodotus and others); and Pyrrhus, like Rufus, was applied to men of fiery complexion. Pliny speaks of three purples—one scarlet, another resembling violet, and a third like coagulated blood. The dress of our Saviour is called in St. Matthew xxvii. 28, "scarlet:" in St. John xix. 2, "purple;" both perhaps alluding rather to its *richness* of colour than to its exact *hue*. The imperial purple, as seen in the unchanged mosaics of Ravenna, is the hue which may be received as true purple, that of the stone called porphyry being a far redder hue; and the imperial purple is composed of nearly equal parts of red and blue, which may also be considered to be a true violet colour.

52. It would be difficult, and very unnecessary, to mention all the different tints which are said "by Roman artists in mosaic to exceed 30,000;" but it may be useful to notice the names of the principal colours in some languages; and I therefore introduce them in English, Arabic, French, German, Greek, Latin, and Italian.

ENGLISH.	ARABIC.	FRENCH.	GERMAN.	GREEK.	LATIN.	ITALIAN.
BLUE	Kohlee (graduated as : ghāmuk, "dark;" maf-tooh, "light;" Heb. כחול, "blue" or "blue-purple.") Azrek (f. Zerka), "darkest blue;" used also for the "darkest black."	Bleu (foncé et clair, "dark and light").	Blau (dunkel blau, hell blau, "dark and light blue").	ῥακυθός (Egyptian, Greek, and Roman blues were mostly oxides of copper; the <i>kyavos</i> was a blue carbonate of copper. They are generally mixed with carbonate of lime). ῥακυθός (<i>indukov</i>).	Cæruleus, cyaneus (hygium was wood-blue, and was mixed with madder - root in purple dyes. Vitr. vii. 1. Plin. xxxv. 6).	Azzurro, turchino (azzurro or turchino-scuvo, "dark blue;" azzurro dolce, "light blue").
— indigo . .	Neeleh (i.e. "indigo").	Bleu d'inde (indigo).	Indig-blau (indigo).	ῥακυθός (<i>indukov</i>).	(Indicum*) .	Indaco.
— (sky) . .	Semmāwee (i.e. "heavenly".)	Bleu de ciel, or céleste.	Himmel blau .	kyavos (<i>kyavos</i> (from blue carbonate of copper, <i>kyavos</i> or χρυσόκολλα). (Smalt used by the Egyptians.)	Cæruleus, cyaneus (cæsius, gray-blue, lo-mentum, celon).	Celeste.
— pale (smalt)	Genzáree, or Zengáree (from Genzéer, "verdigris," bluestone).	Bleu d'email . .	(Schmalte) .	(Supposed to be the χαλκός of Theophrastus. The Portland vase is col. with oxide of cobalt.)	. . . . .	Azzurro di smalto.
— cobalt . .	. . . . .	Bleu de roi, or bleu de cobalt.	(Kobalt) . .		. . . . .	Azzurro della magna (German blue). See Cennini, p. 32. Tr.

* Indicum was also applied to Indian ink.

ENGLISH.	ARABIC.	FRENCH.	GERMAN.	GREEK.	LATIN.	ITALIAN.
Blue, light (Prussian).	Scanderanee (i. e. "Alexandrian").	Bleu de Prusse .	Berliner blau .	. . . . .	. . . . .	Azzurro di Berlino.
—turquoise .	Farózee (i. e. "turquoise").	Bleu turquin .	. . . . .	. . . . .	. . . . .	Bel turchino.
—azure . .	Lazwerd (whence "azure" or "lapis lazuli").	Azur . . . . .	. . . . .	γλαυκος . . .	Glauco*, cyanus.	Azzurro.
—ultramarine, or lapis lazuli.	Lazwerd	Bleu d'outremer .	Himmel blau .	(αρμενιον, and κυανον were lapis lazuli, which was much used in Egypt for ornaments.)	(Armenium; cyanos, an artificial lapis lazuli made in Egypt. Plin. xxxvii. 9; also sapphirus? <i>ib.</i>)	Oltramarino (lapis cæruleus of the Lower Empire).
Bluish	Mezurruk or mezkruk .	Bleuâtre, tirant sur le bleu.	Bläulich . . .	ἰσσοχαρπος? . . .	Sub-cæruleus .	Turchiniccio.
Red	Ahmar (<i>f.</i> hamra), 𐤀𐤇𐤍.	Rouge	Roth (<i>Sanscrit</i> , rudhira).	ερυθρος	Ruber, rubeus (rubrica, "red-ochre;" puniceus, "deep-red").	Rosso.

* Glauco applied also to "fiery-red" (as of the owl's eyes), and to "sea-green," to the willow, to blue-grey eyes.

ENGLISH.	ARABIC.	FRENCH.	GERMAN.	GREEK.	LATIN.	ITALIAN.
Red. Carnation— (i. e. flesh-colour).	Lôn e' gessed (i. e. "colour of the body.")	Incarnat . . .	Incarnat . . .	αἱματωειδης . . .	Sanguineus .	Color incarnato.
Blood red . . .	Dumáwee or dummee (i. e. "blood-colour.")	Couleur de sang .	Blut-roth . . .	αἱματωειδης . . .	Sanguineus, cruentus.	Color di sangue.
Crimson (krimi is "worm" in Sanscrit, and the Arabs took it from the Persian).	Kermezee, from kermez, "cochineal;" whence cramoisi and crimson. The real cochineal is the coccus cacti of South America, but the coccus ilicis was the one used by the ancient Phœnicians, Greeks, and others, and called in Hebrew שני כרמל, i. e. "coccus." But כרמל is properly crimson. 2 Chron. ii. 7.	Cramoisi, "couleur du grenat."	Carmosin roth.	(σανδυξ?) (κοκκος βαφικη.)	(Sandyx? coccus ilicis) coccineus. (For another sandyx, and sandaracha, see Plin. xxxv. 6).	Chermisi, cremisino.
Carmine . . .	Laalee, or doodeh, from dood, "the worm" kermez, or coccus baphica, or cochineal, from which carmine is precipitated by means of alum and distilled water.	Carmin . . .	Carmin . . .	. . . . .	. . . . .	Carminio.

ENGLISH.	ARABIC.	FRENCH.	GERMAN.	GREEK.	LATIN.	ITALIAN.
Vermilion colour (originally from the <i>Kermes worm</i> (whence " <i>vermeil</i> ," afterwards from Cinnabar.	Zoonjoofr, or zoonjoofr, or zingifr, properly cinnabar; Heb. <i>שֶׁזֶף</i> , which is also "red ochre," <i>μῆλτος</i> in LXX.	Vermillon, coral-lin.	Cochenilla . .	<i>μῆλτος</i> (properly red-lead, used also for red ochre, or red oxide of iron, the best being from Lemnos and Cappadocia), (<i>σανδύξ, σανδαρχη</i>).	Flammeus; — minium, used for bright red-ochre (<i>rubrica</i>) and for red-lead, being called also "cerussa usta," or "red-lead" (deutoxide of lead); (<i>sandyx</i> , or <i>cerussa usta</i> ; sandarach; y. ox. of lead, and red sulphuret of arsenic).	Vermiglio (from <i>verme</i> , "worm," i. e. the cochineal).
(Cinnabar, a native red sulphuret of mercury; vermilion being a factitious col., 100 mercury to 16 sulphur.) Scarlet (the scarlet grain of Poland is the coccus polonicus, found on the roots of the "scleranthus perennis," formerly much used for its red dye).	Zingifr or zoonjoofr; Heb. <i>שֶׁזֶף</i> . Wérdee, not rose-colour, though derived from word "rose;" Hebr. <i>שֶׁזֶף</i> , <i>תולעת</i> , or <i>תולעת</i> is "worm;" <i>שֶׁזֶף</i> is the "coccus."	Cinabre. . . . Écarlate, ponceau.	Zinnober . .	(<i>μυρσάρι</i>) (<i>κιννάβαρι</i> <i>ανδίκον</i> , being dragon's blood).	Cinnabaris (called also "minium" — a red sulphuret of mercury).	Cinabro, amatito (Cenn. p. 121).
			Scharlach . .	<i>πυρρος</i>	Coccineus . .	Scarlatto, ponso, color di foco.

ENGLISH.	ARABIC.	FRENCH.	GERMAN.	GREEK.	LATIN.	ITALIAN.
Fire-colour . .	Lôn en-nar (e'nar) .	Couleur de feu .	. . . . .	πυρρος (also a yellow brown) φλο-γεος, φλογινος.	Rufus (yellow-red), rutilus, flammeus.	Color di foco
Madder-colour .	Lôn el fôoah (i. e. colour of the rubia tinctorum, sometimes improperly called "doodeh," which is cochineal). Fôoah e' Shaytan ("devil's madder" (colour), the "anchusa tinctoria," viper's bugloss.) Lôn e' roomán, or roomanee.	Couleur de garrance.	(Krapp; färberröthe)	ερυθρος (ερυθροδανον, rubia, erythodanov). (Sandyx, Virg. Ecl. iv. 45).	Ruber (rubia radix).	Rosso di robbia.
Alkanet-colour .						
Pomegranate-colour.		Couleur de fleur de grenade; ponceau.	. . . . .	ρόδοειδης (?) . .	Puniceus.	
Cerise; but not the colour of a cherry.	. . . . .	Cerise.	. . . . .		
Rose-colour . .	Lôn el werd	Couleur de rose .	Rosen-roth, rosen-farbe.	ρόδοειδης	Rosens	Color di rosa, rosaceo.
Pink-lake, or lake (from an Indian coccus or from gum-lac).	(The colouring-matter of stick-lac, or) lûk.	. . . . .	. . . . .	. . . . .	. . . . .	Lacca.
Pink (light), or pink madder-c.	Bumba . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	Lacca.
Peach-colour . .	Khokhee (from khokh, "peach").	Couleur de pêche	. . . . .	. . . . .	Color persicus	Color di persica.
Evening primrose.						

ENGLISH.	ARABIC.	FRENCH.	GERMAN.	GREEK.	LATIN.	ITALIAN.
Purple	Forfécree, ergooánee (the Hebrew ergóon, אֶרְגֹּון or אֶרְגֹּון, the blue purple תכלת is from the Helix ian- thina).	Pourpre	Purpur	πορφυρεος, φοινικιος	Purpureus (pur- ple, from the mu- rex and bucci- num; and purple glass stained with oxide of manganese) (ostrum).	Purpureo, por- porino, bisso.
Damson-colour or blue-purple (called puce).	. . . . .	Couleur de prune.				
Brown-purple . .	Menowéesh . . . .	. . . . .	. . . . .	. . . . .	. . . . .	Rosso-bruno.
Brown-claret, or maroon*).	Menowéesh . . . .	. . . . .	. . . . .	. . . . .	. . . . .	Amatito.
Violet-purple . .	Menowéesh	Pourpre de car- dinal.	. . . . .	πορφυρεος	Purpureus	Amatito, ama- tisto (Cenn. p. 24).
Bluish-purple . .	Óodee (also "wood colour").	. . . . .	. . . . .	ιακινθος	Purpureus	Purpureo.
Lake-purple . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	Pavonazzo, pagonazzo, paonazzo, (morello).
Violet, imperial- purple.	Benéfsigee	Violet, couleur violette.	Violet	ιοειδης, πορφυρεος	Violaceus, pur- pureus.	Violato, pa- vonazzo, pur- pureo.
Mulberry-colour.	. . . . .				
Lilac-colour . . .	. . . . .				
Apricot-colour . .	Mishmishee.	Couleur de lilas.				

* Maroon, or marrone, properly chesnut (*marron*), but said by Mr. Field to be composed of black and red, or black and purple, &c.

ENGLISH.	ARABIC.	FRENCH.	GERMAN.	GREEK.	LATIN.	ITALIAN.
YELLOW (bright — being chrome No. 2).	כסף, ásfer (<i>f. saffra</i>)	Jaune	Gelb	ξανθος	Flavus (as corn), luteus (as egg).	Giallo.
Yellow (ochre) .	Id. (lón e' tufi) . .	Id. (ochre) . .	Id. (ocher) . .	(ωχρα)	(Sile, ochra) . .	Id. (ocra).
Saffron-colour . .	Zahfaran	Couleur de safran .	Saffron-gelb . .	κροκίμος	Croceus	Saffarano, zafferano.
Golden	Lón e' dáhab, dtháhabee.	Couleur d'or . . .	Gold-gelb . . .	χρυσεος	Aurantia, aureus.	Color d'oro.
Canary-colour . .	Lémóonee (lemon-colour).	. . . . .	Canarien.	. . . . .	. . . . .	. . . . .
Straw-colour . .	Lón e' tibn, tibnee. .	Couleur de paille .	Stroh-farbe . .	. . . . .	. . . . .	Color di paglia.
Brimstone-colour (Yellow orpiment colour; yellow sulphate of arsenic).	Kabréetee	Couleur de soufre .	. . . . .	σανδαράκη, yellow oxide of lead, and αρσενικον, auri pigmentum, "orpiment," were ancient yellows.	Auri-pigmentum; sandarach.	Giallo di solfo. Risalgallo.
Orange	Portokánee (from portokán, "orange," i. e. of Portugal).	Orange	Orange-farbe . .	. . . . .	. . . . .	Color d'arancio, rancio.
GREEN (bright — partaking of moss, emerald, grass, and verdigris-green).	קרי, akhder (<i>f. khadra</i>)	Vert	Grün	χλωρος (the ancient greens were carbonates or acetates of copper).	Viridis	Verde.
Verdigris-green (verditer), most commonly used by the ancients.	Lón e' genzéer . . .	Verdet (vert de gris).	Spangrün . . .	(χρυσόκολλα, carbonate of copper; ιος χαλκου diacetate of cop).	Gramineus (chrysocolla; Ærugo, and Æruca).	Verderame.

ENGLISH.	ARABIC.	FRENCH.	GERMAN.	GREEK.	LATIN.	ITALIAN.
Grass-green . .	Lón el hasheesh . .	Vert de pré.				
Pea-green . .	. . . . .	Vert de poireau,	. . . . .	πρασινος . .	Prasinus . .	Verde porro.
Leek-green . .	. . . . .	vert de montagne.	. . . . .		
Sea-green . .	. . . . .	Vert de mer, vert	. . . . .	γλαυκος . .	Glaucus . .	Verdazzurro.
		céladon.				
Sap-green . .	. . . . .	Vert de montagne	. . . . .	. . . . .	. . . . .	Verde porro.
Parrot-green.						
Apple-green.						
Tea-green.						
Olive-green . .	Zaytónee ("olive").	Vert d'olive . .	Oliven-farbe . .	. . . . .	. . . . .	Olivastro.
Blue-green . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	Verdazzurro.
Rifle-green.	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
BLACK	חֹר, áswed (f. soda).	Noir	Schwartz . .	μελας* (μελαν, or atramentum, was made from the ink of the sepia; and ivory-black, or elephanti-um, from ivory).	Niger, ater (atramentum, "ink," &c.	Nero, negro.
Coal-black . .	Fáhnee (i. e. "char-coal").	. . . . .	. . . . .	The best charcoal-black (τρυνον, tryginum) of burnt vine-twigs, noir de vignes.	Piceus (pitch black).	

* Black in ancient Egypt was of burnt bone, which, like ivory and lamp-black, were used at an early time. The noir de vigne and burnt refuse of grapes is a superior black, called Frankfort black in Germany. Indicum, or Nigrum Indicum, was India ink.

ENGLISH.	ARABIC.	FRENCH.	GERMAN.	GREEK.	LATIN.	ITALIAN.
Jet-black . . .	Ázrek (i. e. "blue-black").					
WHITE . . .	חֹדֶר, abiad (f. bayda).	Blanc . . .	Weiss . . .	λευκος, ψιμυθιον (ce-russa was white-lead, but the an-cient whites were mostly carbo-nates of lime in Egypt, Greece, and Rome; the best was from Melos Island, and called με-λιας, melinum).	Albus, candi-dus, niveus ("snow-white"). Pa-rætonium, so called from that place, was a pure white much used for grounds.	Bianco (biacca, "white lead").
Gray . . .	Singábee or sínjabee .	Gris . . .	Grau . . .	γλαυκος, χαρως	Glaucus, cæ-sius.*	Bigio.
Slate-colour . .	Roomádee (i. e. "of ashes").	Couleur d'ardoise	Echiefer-blau.	τεφρος, τεφρωδης .	Cinereus . .	Cignerognolo, color di cenere, berrettino.
Colour of ashes .		Cendré . . .	Asch-farbe, asch-grau.			Berrettino. Bruno.
Wood-colour . .	Oodee . . .	Brun, bis . . .	Braun . . .	φαιος (applied to brown bread). Greek and Ro-man browns mix-tures of ochre and black.	Pullus, fuscus .	
Brown . . .	Asmer (f. samra) . .					

* Catullus speaks of "cæsius leo"; it is also applied to a "blue."

ENGLISH.	ARABIC.	FRENCH.	GERMAN.	GREEK.	LATIN.	ITALIAN.
Russet (applied also to mixture of purple and orange).	. . . . .	Brun	Braun-roth (red-brown or bay).	φαιος (an indefinite name).	Ferrugineus, pullus, fuscus.	Rosetto.
Red-brown or horsechestnut.	. . . . .	Marron d'Inde .	Braun-roth. .	. . . . .	Ferrugineus.	
Chesnut	Koomayt (applied to a horse).	Châtain	Kastaneen-braun.	. . . . .	Castaneus . .	Castagnino.
Light brown . .	Kammóonee	Brun clair . . .	. . . . .	. . . . .	. . . . .	Bruno chiaro.
Light honey-colour.	Assalee (applied to what we call hazel eyes).	Couleur de miel.	Honig-farbe .	μελιχρῶος . . .	Color melleus.	Color di miele.
Coffee-colour .	Bonnée.					
Dark tawny . .	Asmaránee	Basané, bis . .	. . . . .	φαιος	Fuscus. . . .	Morello, fosco, bruno, bigio-scuro.
Tawny (yellowish).	Asmaránee	Jaune de coing, de safran, assané.	. . . . .	χαρῆρος (applied to gray eyes, to the lion, and to the sea), πυρρος, κίρρος.	Fulvus (tawny yellow), torvus.	Leonato.
Sorrel (horse) .	שׂוֹרֶט, ashker (horse) .	Saure	Roth-fuchs.	. . . . .	. . . . .
DRAB . . . . .	. . . . .	. . . . .	Gelb-graue-farbe.	. . . . .	. . . . .
Spotted	Menúgrush, menúrush).	Moucheté . . .	Sprenklich . .	ποικίλος	Maculosus . .	Moschato, picchiettato.
Striped	Tábán (i. e. snake marked, applied to a "tabby cat," whence our name?)	Rayé	Streifig, gestreift.	ῥαδῶρος	Virgatus, striatus.	Rigato.

The foregoing list will suffice to show the uncertainty of the ordinary names of colours, and how often they are applied to very different kinds. But in order to fix those even in our own language, it would be necessary to give coloured specimens of each, with their most important tones and hues; and as this would far exceed my limits, I confine myself to the colours commonly required for decorative purposes, which are given in Plate III.; and refer the reader to a very useful work on the subject ("Werner's Nomenclature of Colours" *), where he will find a great number of them treated in a very practical manner, with their hues illustrated by references to objects in the animal, vegetable, and mineral world.

53. Varieties of a colour are *hues*; thus, different kinds of blue, as a cobalt-blue, indigo-blue, sky-blue, &c., are *hues* of blue; and olive and emerald-green are hues of green, &c.

Various intensities of a colour are *tones*, *i. e.* different shades of the same kind of blue, as different tones or shades of cobalt and others; and this distinction has very properly been observed by M. Chevreul in his very ingenious and useful work on the Harmony of Colours; where he has given, what was so much wanted, observations and facts relating to the juxtaposition of colours and their effects.

It is always desirable, in order to avoid confusion, and to simplify a subject, that those who write upon it should, as far as their opinions will allow, adopt the same nomenclature and definitions; and as I find so much in M. Chevreul in accordance with my own views, I shall endeavour to deviate as little as possible from the terms he employs; and though there are some few points in which I differ from him, I am glad that so many of his observations accord with my own.

54. I am far from pretending to lay down *rules* for the application of colours; and it will suffice to mention those facts

* By Syme. Edinburgh, 1814.

of which any one who has a correct eye for colour may judge. Indeed there are so many *exceptions* to the rules already suggested that nothing can yet be accepted as a reliable guide; and I have already shown how erroneous a conclusion has been arrived at on the subject of accidental colours (pp. 60, 74), and how theory has propagated the error. But if I differ from the opinions of some who have attempted to lay down rules before they understood the subject, it is my desire to do this with perfect respect for them, without any intention to condemn their praiseworthy endeavours to impart instruction to others; but having the same object, I cannot, on public grounds, see opinions gain favour which are totally at variance with sound experience, without entering my protest against their hasty adoption. However plausible a theory may be, if founded on erroneous notions it can only mislead; and I appeal to all the practice of the Asiatics, the Egyptians, the Greeks, the Moors of Spain, the Italians, the French, and others who have been noted for their success in ornamenting with colours, and to the convictions of those who have a natural perception of their concords, to second me in my assertion, that such combinations as these accidental colours, viz. green and russet, orange and olive-green, purple and citrine, are *not concords*, but offend against true harmony. A yellow-orange with olive-green would be less objectionable than a red-orange, and would at least accord with it by analogy; and an orange with some other hues of green would be far preferable to orange with olive-green.

And in order to show the effect of the secondary purple and its accidental tertiary colour citrine; and of the secondary green and the tertiary russet; I introduce these colours as *specimens of discords*, though they have been put forth as *harmonious combinations*. (See Plate III. figs. 9, 10.) Again, it has been said that each primary, with its accidental secondary, and the tertiary which is accidental to this last,

form a *harmonious* combination, as red, green, and russet (fig. 6), blue, orange, and olive (fig. 7), and yellow, purple, and citrine (fig. 8); but these again are, in fact, *discords*, and are made much more discordant when such relative proportions of each are introduced as 5 red, 11 green, and 21 russet; 8 blue, 8 orange, and 24 olive; 3 yellow, 12 purple, and 19 citrine; though these are actually laid down as the necessary quantities in which the colours harmonise with each other. And without noticing any of the others it will suffice to say, that no one with any real perception of the harmony of colour would place in juxtaposition 5 red and more than double the quantity of green.

To these I shall add the following:—red, russet, green, and lilac (or a purple); green, red, and lilac; and russet and lilac (or a purple); which, though given as illustrations of the mode of arranging colours, are disagreeable discords; and like the former, should be carefully *avoided* by students in colour, however plausibly *theory may have recommended them as harmonious concords*. And though the combination of 2 blue, and 2 orange, and 4 purple is not a discord, it is a defective arrangement of colour; for here the blue and orange balance each other; while the purple (which is also excessive in quantity) has no other colour to balance it, and the effect of the whole is consequently defective.

I shall now offer some remarks on the arrangement of colours.

55. *Section I.* In all cases of polychrome ornament (considered apart from paintings) the three primaries—red, blue, and yellow—should generally predominate; and, indeed, they may be used alone with good effect without any other colour. But it is not *necessary*, as some have maintained, that in ornamentation the three primaries should alone be admitted, to the exclusion of the secondaries and tertiaries; it will suffice that these two last be less in proportion, and secondary

to the primaries in position and effect. A preponderating quantity of the secondaries, or tertiaries, is far from agreeable, whether it be in drapery, wall-patterns, glass windows, or any other ornamental work (except in the *grounds*); and the painted glass windows by Cornelius, in the Cologne Cathedral, are a notable instance of the too injudicious employment of many secondary colours. The same may be said of the windows in the Church of St. Gudule at Brussels, which by some unaccountable misappreciation of colour have been held up to admiration. There are, however, certain combinations in which it is not necessary that the three primaries should be present, as where blue and orange are combined with black and white, or some other colours; and in *grounds* secondary or other hues may, of course, predominate over the primaries.

II. When a secondary, or a tertiary, colour is used, a combination of at least two others with it has a better effect, than when one alone is in juxtaposition with it.

III. The presence of yellow in the vicinity of red and blue, or a small fillet, or other small quantity, of that colour interposed between them has the good result of preventing their borrowing from each other and appearing purple (*see* above, pp. 9, 61). A white fillet has a similar effect—but it is colder than yellow; and red, blue, and white, do not form the same harmonious combination as red, blue, and yellow; again, it is preferable that yellow should predominate in a composition than white, though yellow should always be in less quantity than blue and red; and gold, when it can be introduced, has a far better and richer appearance than yellow. But in ceilings, notwithstanding its coldness, white, or rather cream-white, as a ground for many colours, has been sometimes employed with success; and it is preferable to a large expanse of yellow, though not to gold.

A favourite combination of the ancient Egyptians, on their painted walls and columns, was red, blue, and green, frequently with a yellow or a white fillet between each, for the purpose already alluded to*; and when yellow was used in any quantity black was introduced to harmonise with it and balance the effect, being a concord with yellow. The ceiling of a temple was blue, with white or gold stars on that ground; and if any one colour was employed in a disproportionate quantity, a compensation was made to its companions in an adjoining part of the wall, or in some other position sufficiently near to enable the eye to restore the balance.

It is a mistake to suppose they used colour with some religious view unconnected with ornamentation, merely because it belonged to a particular god, or to certain rites. One god, it is true, was always represented blue, another red; but when it was necessary to introduce the former, more red was employed in the hieroglyphics and other accessories; which could be varied at pleasure. It is certain that more green was admitted upon their monuments in later than in earlier times, and in the Ptolemaic reigns large masses appear on the capitals of columns† and other parts of the building; but this was independent of any religious feeling, and it was the usual sign of a debased taste, and the consequence, as I have already stated, of people having become artificial, and of their having lost the true appreciation of the harmony of colours.

The Greeks also preferred the brightest red (ultramarine),

* In some dresses they appear occasionally to have omitted the yellow, for the very *purpose* of giving a purple effect to the blue and red pattern when seen at a distance. But this should not be imitated in our glass windows.

† This may be seen in the Egyptian screen of columns at the Crystal Palace of Sydenham (*see* p. 17).

blue and yellow for architectural decoration; and gold was added in highly ornamented mouldings. This did not, however, exclude some other colours, which were occasionally used on the interior walls, as any one may see at the Parthenon; and, according to Mr. G. Semper, "all the flat ground members, as the walls—often decorated with paintings and ornaments—the tympana, the lacunaria, and perhaps the metopes, were of a blue-black." "The prevailing colours of the mouldings and ornaments were red, blue, and green the green very delicate, of a bright moss colour. The details of the ornaments alternated regularly, and were united together by many delicate and projecting fillets of white, black, and gold;" and in the temples of Athens he believes "them to have been of gold." According to M. Hittorff, the principle generally followed in the Sicilian temples was found to be "the colouring of the body of the wall a pale yellow, or golden colour; the triglyphs and mutules blue; the metopes and tympanum red, and some other portions of the building green;" the same being varied, or used "of greater or less intensity, as the judgment of the artist dictated."

In the museum of Palermo too are the remains of a small Greek building, from Selinus in Sicily, in which the colours are blue, red, and yellow.

Much is also learnt respecting the colouring of architectural details from the ash-chests of the Etruscans, where the mouldings, and even the columns, are coloured, as I have shown in another place*; where I have also made some remarks on the use of colours by the Greeks.† And though Dr. Kugler may be disposed to limit the colour to particular buildings in Greece, or parts of them, or to those of certain periods, the investigations of M. Hittorff have enabled him to prove

* Part II. § 64.

† Part II. § 59 to 61.

that the same colours existed "on the monuments of Athens as those he had discovered in the Sicilian temples."

IV. Colours by light of candles, or a lamp, and in the day, appear very different; and it is therefore necessary in ornamenting an interior to provide for this change. The reds, by borrowing some of the yellow light, approach nearer to scarlet, crimson looking brighter than in the day; dark blues, by absorbing so much light, appear almost black; and there is often a difficulty in distinguishing between *light blues* and green. The same carpet, therefore, which looks well by daylight may lose much of its effect at night; while another, which has not so good an effect by day, may even appear more brilliant by candlelight. This will depend on the tone and assortment of the colours; and it is always a matter for consideration whether an interior is required to have its best effect by day or night. The fact is, of course, well known to ladies in the choice of their evening dresses; but it must also be attended to in furniture and wall decorations. Blues to look well by candlelight should be of a bright tone; and if a dark blue *must* be used it should have another of a lighter tone in its immediate vicinity, or be interspersed with white. (See Sects. VI. and XI.) A bright green in conjunction with blue will also aid in lighting up the pattern, and green is therefore useful for increasing the effect of a carpet or other coloured work by candlelight, by preventing the blues giving it too dark an appearance. Green may even be employed for subduing the effect of red; and a carpet may have more green, when the furniture of a room is light coloured. Certain hues of green may also be allowed to cover the walls of a whole room (especially when pictures are to be placed on the walls, for which a plain tea-green is well adapted; as is a red with a slight tinge of crimson); but then a number of other colours should not be introduced in the curtains, carpets, and other accessories. Green accords

admirably with gold, but a combination of numerous colours with a large mass of green is seldom agreeable: and if a pattern be introduced on a green wall-paper, it should rather be of another tone of green, and of subdued force; and a dark green should not be placed on a light green ground. Still less should a dark green ground be spotted over with other colours. A cerise red may, however, be combined with a mass of tea or other green of similar hue as a *border* to it, or to the draperies in the same room; and a green may sometimes be used with gold on certain *grounds*, in combination with other colours which would not harmonise with green without the gold. (*See* pp. 105, 106, 125, and above, p. 17.)

V. Colours are opposed to each other in different degrees; 1st. The strongest opposition is by *positive contrast*, when the colours are of different hues and natures: as black and white; blue and orange; scarlet and blue, &c. Of these, Mr. Field says (p. 26) the only two contrasting colours which are of equal powers are "black and white," "orange and blue," and "all other contrasts are perfect only when one of the antagonistic colours predominates." 2nd. *Opposition, or contrast, of warm and cold colours*; among the former of which are reds, yellow, orange, brown, red-purple, &c.; among the latter, blue, grey, green, blue-purple, white, blue-black, &c. 3rd. *Opposition, or contrast, of dark and light colours*; or *opposition of tones*, is when the colours are tones of the same hue, one stronger than the other, as dark and light yellow. 4th. *Opposition, or contrast, of accidental colours*, is when a colour and its accidental companion are opposed to each other (*see* p. 72), as red and green; blue and orange; yellow and purple. And though black and white are accidental to each other, they cannot be said properly to belong to this class; nor is positive white ever mistaken for its accidental companion, as other accidental colours are, through a defective vision or colour-blindness (*see* p. 56). These two properly

come under the first class as positive contrasts; and the greatest and most violent contrast is between those two colours. Nor do all other accidental colours contrast with each other in an equal degree, or under the same conditions; and I cannot too often repeat that, because blue and orange are most harmonious contrasts, it does not follow that red and blue-green should be so, and still less green and reddish-violet, which are a most obvious and disagreeable discord. (*See above, p. 74.*)

VI. It is of great importance to understand the effect which colours have on each other when in juxtaposition; and allowance must be made for this in their arrangement. For as black when next to white appears blacker, and the white next to black looks brighter, so many colours heighten each other's effect; while others diminish it (p. 62). The action of yellow on some others has been noticed in p. 76. Any colour may be increased or decreased in intensity, according to the greater or less contrast it receives from a neighbour. Its power too may be altered by a disproportionate *quantity* of another, and also by juxtaposition with the same quantity of another of a fuller tone, or more *powerful* than itself. And this is the case when colours are of the same as when they are of different hues. It seldom happens that the union of two different colours, *in very different quantities*, has a good effect. There are, however, some remarkable exceptions to this, as in the case of red and white, and some others which I shall have occasion to mention (Sect. XVIII.); and there are also some occasions where colours of a deep and a light tone may be employed together to advantage; particularly when many are combined to form a design. As a general rule for colours to agree, the essential point is, that they be of the same *intensity of tone*; for two which agree admirably when both are of the same power, lose their proper effect the moment the equilibrium ceases to be maintained; as when a deep tone

is combined with a light one: *e. g.* crimson with canary, or with lemon-colour: black with pale straw-colour; a deep red with a pale blue, and others; when the first looks heavy and the other poor, and the latter is overpowered by the deeper tone of its companion. Thus too a grey looks paler in company with black. The same attention to the balance of hues is of course essential in furniture, draperies, and all coloured combinations; and even flowers, bright as they are, may have their effect lessened by an injudicious introduction of brilliant colours in the vases which contain them, or by the too gorgeously painted walls of a conservatory. Here, indeed, a more subdued tone of decoration is required, as the flowers are to be admired for their own merits, and are not expected to form part of the general ornamentation.

It does not follow that a pure colour must accord with a compound one in which the hue most opposed to the pure one predominates, merely because one of the two forming that compound is a harmonious contrast to it; and yellow with blue-green (though yellow and blue are concords), do not accord as well as yellow and yellow-green: thus the flower and leaves of the *Tropæolum canariense* are better suited to each other than the same flower to the leaves of the Iris, or Flag. But this is *partly* owing to the latter being of a different intensity; and flowers are not always a safe guide (*see pp.* 19, 106). Nor is red with a green containing much blue so good a combination as with a green which has more yellow. This too shows that the blue-green, which is nearer to the complementary or accidental colour of red, does not suit the red so well as does a yellower green, as I have already stated. Scarlet too accords better than pure red with green; and this even suits a yellow-green rather than one in which the blue tint predominates. Crimson, again, is disagreeable with green.

It is not only when two colours are of a different character

that the deeper one overpowers that of a lighter tone; the same occurs when they are of a similar kind; and the effect of the weaker one being diminished, it looks paler than it really is; while that of the stronger one is increased. Thus a light orange, close to a scarlet, is overcome by it; and a broad line of orange between two yellow ones assumes so much deeper a tone that it will actually appear red; and the *same* line placed between two red ones will be reduced in appearance to yellow. Allowance must therefore be made for these changes, when such colours, or tones of colours, are combined in a pattern.

VII. This should also be borne in mind, that two colours sometimes borrow from each other, in *another way*, when in juxtaposition; and a red in the midst of a ground of yellow (or with yellow interwoven with it) approaches to an orange, or a scarlet, in appearance. This borrowing from each other is not only the case in colours of more or less analogous nature, but also in those which are contrasts; as blue and red, which, as I have already shown, borrow from each other when in contact, and appear purple unless separated by a third colour. And here I must repeat, that there are cases where a light and deep tone of the same colour, or of two analogous colours, may with advantage be placed near together, in combination with many others; and in a carpet, or piece of drapery, a bright with a deep yellow, two tones of red, or of blue, or a yellow with an orange, lighten up the composition; and are often very effective, both when near and even when at a distance from each other. The use of light with a deep blue is also of great service by candlelight, the latter giving to its companion a more evident appearance of blue, which it is apt to lose at night, when, from its absorbing so much light, it assumes a dark hue; and a dark blue actually looks black. White combined with blue has also the effect of restoring its blue appearance by candlelight,

as I have had occasion to show in Sect. IV. Sometimes, then, a colour of the same hue, and of a deeper, or of a lighter, tone, may be improved, at other times injured, by juxtaposition; and it may be employed, or avoided, as the case requires. Indeed, in the combination of two or many colours, attention must be paid to the effect they mutually have on each other, sometimes borrowing, sometimes diminishing, each other's power; and the arrangement of a polychrome composition must vary according to the mutual effects of the various colours. For (as I have just said) colours are not only influenced by others of a similar nature, but by those of a totally different character; a black placed in the midst of red takes from the latter, and when seen at a certain distance, has a rusty, while the red has a brick, hue; and a bright green in the midst of red looks like a dingy green. The black requires white or yellow next to it in order to give it a decidedly black hue; and the green requires the addition of a yellow to give it its true character. This I have already noticed (p. 62) as the *reciprocal effect of colours*: and it is quite as essential to consider the effect that a colour has on its neighbour, in order to maintain the just balance of colours, as to avoid the undue predominance of one or more in a composition. This *reciprocal effect* of colours has been called *simultaneous contrast*; and both have been used to convey the same meaning; though in reality the two should be kept distinct, and applied to different cases. Thus red and black change their character from *reciprocal effect*, not from *contrast*; while black and white have each their true character through *simultaneous contrast*; but as the latter term is well known, it is not necessary to insist on the minuteness of this distinction.

The same colours have also a different effect when seen at a distance from what they have when nearer the eye; it is, therefore, necessary to consider the point from which they

are to be generally viewed. Some colours again are suited to great heights; others to positions nearer to the ground; and to introduce dark reds, browns, and heavy colours on the upper parts of a room, and bright yellows, blues, or any very light tones close to the floor, would have as disagreeable and inconsistent an effect as to place the lightest ornamental work on the lower portion of a building and the most massive on the upper part.

M. Chevreul has very properly insisted on the "simultaneous contrast of colours," and "of tones of colour," and the diminution or the increase of intensity of each when in contact, according to their relative qualities, in which he is perfectly justified by experience. Among other examples he cites the colours of the rainbow, which "are modified by their juxtaposition, inasmuch as isolated they appear of different hues than we see them;" and though the subject of "simultaneous contrast of colour" was known and studied long ago, he has added greatly to previous observations by many valuable experiments, for which we are the more indebted to him, as they correct some erroneous conclusions, and substitute practice for theory; and his remarks on the effects of colours upon each other when seen together are just and worthy of attention (p. 34). What he says of "*successive* contrast" is also important; and though it should be attended to by persons who examine fabrics of the same hue, or copy a particular colour for a long time, it has not the same bearing on a pattern of many colours; and this may also be said of his "*mixed* contrast;" in relation to which he gives some curious facts. (pp. 35-38.)

It is true if the eye looks for a long time at a red colour that the accidental or "complementary" green image of it does sometimes take its place on the retina; but this is only when the eye has become so fatigued by looking at it as to lose its previous power of seeing the true colour. There are also certain moments when the retina is more readily

affected by the accidental colour than others. These, however, are the exceptions, not the rule; and in ordinary cases, unless the eye is closed, after looking intensely at a coloured object, no such change takes place. Besides, this would be obviated in looking at a complicated polychrome design, where more than one colour is seen at once, and each would of course appear without being confounded with its accidental image. Some colours again are modified more or less by the juxtaposition of their immediate neighbours; and this modification is an additional reason why the accidental image of a colour would not appear, and would prevent any one of the colours being altered by it. What the effect of a colour may become after the eye has looked at it *until fatigued* is unimportant, the object not being to judge of a colour when the eye is in that condition; and the retina is little liable to be so affected in looking at a combination of many colours. When the eyes have dwelt so long on *one* colour that this effect is produced, the remedy is (as Mr. Field very properly recommends) that "they should be gradually passed to its opposite colour, and refreshed amid compound or neutral tints, or washed in the clear light of day." Thus if the eye is fatigued by looking long at red, and this has lost much of its real hue, and ceased to appear of a true red colour, the eye should be relieved by turning to green (its accidental colour); when on looking again at the red it sees it, as at first, in its full force. But though the eye might be so deceived by long dwelling on one colour, it would not be so affected by a large number.

VIII. I have already stated that each colour should be of the same *tone*, or *intensity**; but that there are certain cases in which a lighter tone may be introduced to *brighten up* a design†; and in some again the quantity of one or more must be regulated by the effect required, as when it is desirable to

* P. 75.

† Pp. 97, 101, and Sect. XVIII.

give it a particular tone. Thus when a warmer, or a colder, tone is to be produced, more red, or more blue, may be introduced; but for this and the subject of *quantity* and *proportion* I must refer to Sect. XVIII. The *proper hue* of each is also a point of great importance; for when a bright red, blue, or green, is required to agree with another bright colour, the introduction of any *one* of these of a duller hue than its companion would be fatal to their general effect. This is sometimes the case in the old mosaic pavements at Rome and elsewhere; but it may be accounted for by the workmen making the best of the materials they had at hand, and being forced to place dull reds and greens in juxtaposition with brighter hues. And it is probable that the heavy red of porphyry would not have been combined with serpentine if the unlimited choice of brighter and more accordant colours had enabled them to make a better selection.* But it may also be attributed to a vitiated Roman taste. (*See below, p. 151.*)

Of the proper *quantity* and *proportion* of colours I shall also treat in Sects. XVIII. and XIX.

IX. *Grounds and Single Colours.*—A colour, when used as a *ground*, has a very different effect, and is under very different conditions from the same introduced in combination with others in a pattern. Thus green, so intractable in large quantities when with other colours, is allowable for covering the walls of a room; and light green, greyish-green, tea-green, and others, when in large masses, look better if used alone. There is, however, a certain hue of light blue, or bird's-egg-green†, which may even be used as a ground for many other combined colours; and tea-green is very suitable for a wall hung with pictures, provided it is plain, without any pattern. (*See above, p. 97, Sect. IV.*)

* An instance of this may be seen in No. 2 of Mr. Digby Wyatt's interesting collection of the "Mosaics of the Middle Ages," and particularly in fig. 2; and again in No. 3, where the want of harmony in the mosaic is remarkable.

† Bird's-egg-green is rather a hue of green-blue than of green.

The same hue of green which would have a disagreeable, or even a discordant, effect, when combined with a particular colour, may occasionally be introduced upon a gold, black, or some other ground in contact with that same colour without appearing any longer discordant; the ground having altered the relative conditions of the two; and thus instances of green with the most discordant tones are sometimes bearable, as in Indian and Persian patterns, on an orange, black, salmon, red, or even on a pink, or purple, ground, where much gold is introduced, which would be intolerable without the same quantity of gold. I shall have occasion to mention examples of these in Sect. XIX. pp. 152, 155, 156.

Pink, again, scarcely accords with any other colour, and looks better alone. It is too frequently overwhelmed by a neighbour. It is true that, in nature, pink has often an agreeable effect with green, as in the rose with its leaves, and the red pink of the wood sorrel suits its leaves also; but a piece of drapery, or a dress, of these two colours would be far from harmonious. And as I have shown (pp. 19, 100) colours have a very different aspect in a garden, and when used for ornamentation in building, or in fabrics. Pink too sometimes looks well with white (which does not overwhelm it), and with some light hues; but then the effect is poor, or at most *pretty* and insignificant. But though too light to bear the union with most other colours, it looks well alone in draperies and dresses. I do not, however, in speaking of "draperies and dresses," mean that these two are subject to the same conditions; for what suits one is often ill adapted to the other, and we should be sorry to see all the contrasts allowable in draperies transferred to costume. But in both of them a simple pink hue is preferable to one intermixed with other colours; and in dresses it is difficult to find any trimmings suited to pink, unless they be black, or a dark purple. This fact of some colours giving a different impression, when in a mass, is consistent with the difficulty of judging of a design,

and of the effect of colours, from a small specimen, as they look very different in that and in the piece.

Black, purple-puce, chocolate-brown of a purple hue, grey, buff, and others, answer as a ground; though, if half the same quantity were introduced into a pattern, they would be insufferable, heavy, and gloomy, independent of their offending against the due proportion of quantity. The same may be said of gold, which has a beautiful effect as a ground; but which, if used in half the same quantity in combination with other colours, would be gaudy and meretricious. Many instances of this might be cited; but it will be sufficient to notice the beautiful ceiling of the sacristy of St. Mark's, at Venice, which is also remarkable for the admirable harmony of its colours. And here again we perceive how different are the conditions of gold, and still more of a gold ground, from those of yellow, or even of orange; and, though an orange ground is allowable, the same expanse covered by either of these two colours would be disagreeable. Still worse would be the employment of overwhelming masses of yellow, or of orange, interwoven with other colours, in a design. Nor could white, which, though cold, is tolerable as a ground, be intermixed in large proportions with other colours without injuring their effect. Gold is one of the best of grounds; but it is better as a mosaic, or slightly figured, than as a plain gilt surface. For coloured mosaics its effect is admirable; but a profusion of gilding in a building, or on furniture, is heavy and tawdry, and is one of the faults of French decoration. Amongst the best for grounds in draperies are greys, stone-colour, buff, drab, chocolate, and other light browns, black, white, and purple, which accord well with other colours. On the other hand, when greys, light greens, pink, and some others, are used singly to cover large spaces (as for wall papers), patterns of that same colour of a darker tone may be introduced with good effect.

A cream colour is almost always a more agreeable ground

than pure white; and their comparative merits may be judged of in Parian ware and in plaster casts. Black is an excellent ground, and sets off other colours when properly assorted, especially if there is sufficient white (or yellow, or orange) to give the black its full effect, and prevent its losing its real hue. How much better, for instance, are red, blue, yellow, and white, on a black, than on a grey (or light), ground; and the loss in the effect of black, without any white (or yellow) near to it, should never be disregarded. It is not advisable, when black is used as a ground, that it should always appear in large masses, with the other colours dotted upon it; the effect is often more agreeable when, as in many Persian carpets, the black ground only appears as a thin fillet, or edging, round the other hues, showing itself here and there to assert its position as the ground of the pattern, and giving relief to it, which it is sure to do when properly set off by the judicious introduction of white, yellow, or orange, in contact with it. The black absorbs light, and heightens, by contrast, the other colours, especially by candlelight, if properly combined; but if blue, and green, and red, or scarlet, are arranged with black lines between them, the effect is bad, and those lines would then be better if yellow, or even white. But a black ground can seldom be introduced into a ceiling; and, unless the room were of considerable height, it would be fatal to its appearance. A low room, with much black in the ceiling, would appear still lower and most gloomy. And, indeed, for a coloured ceiling to look well, the room should always be of sufficient height, and be well lighted. The ceiling of the library at the Cathedral of Siena affords a remarkable instance of colours on black, blue, red, and gold grounds; but here the arrangement is subservient to the effect of Pinturicchio's beautiful frescoes on the walls, which is assisted by a wainscoat of dark wood twelve feet in height at the lower part of the room.

It is not sufficient that a particular ground should be arbitrarily selected; it must be adapted to the position it is to hold, to the general ornamentation, and to the character of the surrounding objects. And though black may be generally looked upon as a good ground for colours, it is seldom suited to walls or ceilings. It may be used for some draperies, dresses, and other objects, or even occasionally for columns and furniture; while, in glass, a black ground is rarely admissible.

White is a very useful ground for other colours, as it heightens a room, and gives more light than any other; but it is often cold and harsh when covering a large space; and, beautiful as it is in the ceiling of the library of the Vatican, it is there also open to that objection. The same crudity of effect may be observed in that of the Roman Court at the Crystal Palace of Sydenham; while the colours of the ceilings in the Greek court, and in the Alhambra Court of Lions, are admirable specimens of harmony of colour.

X. A whole wall, ceiling, or other space, should not be entirely covered over with rich ornament; and so also in a coloured piece of drapery, or any ornamental work, it is better to have some portion of it much less rich, and of less complicated pattern, than the rest; and, in some cases, to have only a border round a simple ground destitute of any pattern, as it is apt to fatigue the eye when overloaded with equal richness of detail throughout. This is still more important in a coloured building, where, if the whole walls, columns, and other parts, are covered with elaborate and coloured patterns, the eye feels a want of repose; and the same when a building is covered entirely with sculptured ornament without colour. The richly carved part not only requires an unsculptured portion in order that it shall not fatigue the eye, but is improved and set off by the contrast; and contrast is as necessary for effect in form, quantity of detail, and the position of lines,

as it is in colour. On this principle, great effect is sometimes given to a coloured pattern by having a portion of the composition, on the wall of a building, without any colour at all; and, for the same reason, an expanse of wall in a room often looks well when painted with a single uniform ground surrounded by a rich pattern (*see* Part II. § 56). And I here agree with the remark of Hogarth, that “when the eye is glutted with a succession of variety, it finds relief in a certain degree of sameness; and even plain space becomes agreeable, and, properly introduced and contrasted with variety, adds to it more variety.*

XI. Again, certain colours are better suited for some places than for others, and the brighter and more transparent for higher positions, and if the hangings of a room are scarlet, crimson with gold has a richer and better effect for the chairs than scarlet and gold. A carpet may be darker than the general tone of the draperies, and some of its colours may be carried up by the walls, or the curtains; but if the carpet is dark, the furniture shows better by being of a lighter hue. Red, or a light colour, is better than blue for table covers; and though green is not to be recommended for daylight, it lights up well at night, which blue does not; and this then often appears black, or when of a light tone is scarcely to be distinguished from green. Much, however, may be done to give blue its proper effect, even by candlelight, either by placing a light tone of blue close to the darker one, or by interspersing it with white, which will often lead the eye to see the darker blue, and prevent its appearing black, as already shown in pp. 97, 101. This may be seen in some Persian carpets, where two blues are used. And if some of these have too much green for daylight, they have a good effect at night, except when in excess. *Dark* green, like dark

* “Analysis of Beauty,” p. 16.

blue, looks darker by candlelight, and is not an eligible colour by daylight.

XII. Colours that harmonise well may appear less pleasing, in consequence of each not being *properly placed* next to a neighbouring one that accords well with it. The arrangement must therefore be consulted; and it is not enough that they should be such as accord, they must be so placed as to have their full effect on each other. Thus when a blue is only placed at the edges of a pattern, the centre of which consists of red, yellow, and other colours, it looks isolated; it should be connected by being carried through the inner part, in order to give the full combination of all the colours, and the blue would thus be united with the other colours in the centre of the pattern. When white, or yellow, is introduced, a pattern is generally improved by the addition of black, or by a black ground; and a black fillet separating each colour in a complicated pattern has a good effect (*see* Sect. IX. p. 108). As an instance how much the same colours may be affected by their arrangement, I may mention that in a combination of red and blue and black and white and gold, which is harmonious, if the red is placed between the black and white, on a gold ground, they all look poor; while black and white and red and blue, or black and white and blue and red, are a pleasing arrangement (*see* also pp. 62, 63, 137). Again, green and black and red and blue are improved by the addition of white, which last being a contrast to black gives it its full power.

XIII. The combination of warm and cold colours, in proper proportion, is a very great means of obtaining harmony; and thus we find that when red or orange predominates, a good effect is produced by a corresponding quantity of blue. But it is not sufficient for one colour to be warm to make it accord with another which is cold; and though orange har-

monises with blue, it has not necessarily the same effect with white; and blue and white (both cold colours) though their effect is cold, are an agreeable concord without the assistance of any warm companion.

XIV. The colours that accord with each other may be divided into different classes, as may those which are not concords. Sometimes two colours agree by the harmony of positive *contrast* (see p. 76); sometimes by the harmony of *analogy*. Others require a *third* to make a complete combination, without which they are deficient in effect; which frequently happens in consequence of having too near an affinity to each other; others, again, require *more* than one companion to form a proper harmonious union; and to such colours in juxtaposition I apply the term "*wanting*."

Sometimes harmony is obtained by two colours, as orange and blue; sometimes two colours will not form a concord, without the addition of a third, to complete it; occasionally a concord is only to be obtained by a combination of several colours; and sometimes a colour, though it may not cause a discord, fails to make an agreeable combination with any other one or two colours, and is better by itself, as pink and others already mentioned (pp. 105, 106). Sometimes it is better as a ground (pp. 105, 106) than when in combination with others of nearly the same quantity. Sometimes, on the other hand, a colour does not look well alone, and requires to be in combination with another, as scarlet, which wants the contrast of blue, or some other colour. But even though colours may be found to possess their full effect when alone, they may also enter well into a large pattern composed of numerous others, and even browns, buff, and many more well suited for grounds, may be combined in a general design, provided they are inferior in quantity to the primary hues.

Two colours then agree—1. By the *Harmony of contrast*:

(pp. 74, 76, 98.)—2. By the *Harmony of analogy*:—3. By the addition of a third, without which they are wanting to complete harmony:—4. By the addition of several:—5. Sometimes a colour is better *by itself*:—6. Sometimes a colour is better as a ground for others.

I have already noticed the contrasts of colours (Sect. V. p. 98). All do not of course offer the *same kind* or the *same amount* of contrast, as they do not harmonise or disagree equally, or under the same conditions; and red with blue, white with black, white with red, and others, have each a very different effect on their companion when in juxtaposition. Dark and light colours, in like manner, vary in their effect on each other; and the union of these last is not well adapted for ornamentation, being frequently harsh.

XV. Some colours *disagree* from being positive discords; some fail to accord with each other from their tones being of unequal intensity; some from their proportions in quantity being too much disregarded; and some (as mentioned in Sects. X. and XIV.) from wanting another colour to complete the harmonious combination. Of the latter, I may mention an instance in blue and red, which two, though concords, require the addition of yellow to make perfect harmony.

XVI. I shall first notice the arrangement of colours by twos, and show their agreement or disagreement.

This is merely with a view to establish their effect upon each other in *juxtaposition*, without reference to the *quantity* of each.

Among the most pleasing of those which harmonise with each other, in pairs, are:—

- | | |
|---------------------------------|--------------------------------|
| 1. Blue and orange (or gold). | 7. Green and gold. |
| 2. Blue and scarlet. | 8. Black and orange (or gold). |
| 3. Blue and white. | 9. Horsechesnut-brown and |
| 4. Blue and black. | orange (or gold). |
| 5. Blue and horsechesnut. | 10. Brown and gold. |
| 6. Purple and orange (or gold). | 11. Crimson and gold. |

Others harmonise in a minor degree; and others are discords. Others again, though not positive discords, are disagreeable. Some, which I have called "discordant," are less obnoxious than those marked "discords;" and others *want* one or more additional colours to complete harmony. I shall notice them in the following lists. For instances of harmonious combination of *several* colours, the reader is referred to Sects. XVII. XVIII. and XIX.; and for the *tones* of the principal colours, see Plate III. fig. 5.

Blue. (See *Buff, Gold, Canary, Crimson, Cerise, Fawn-colour.*)

1. Blue and red harmonise, but want yellow, and scarlet is preferable to red. (Of Blue, see p. 65. In flowers, *double delphinium*, &c.)
- 1a. Blue and *crimson*.* (See *Crimson*.)
2. Blue and scarlet (see *Blue* in Sect. XVII.) harmonise, and are more harmonious, from the addition of the yellow contained in the scarlet, than blue and red, *e. g.* in flowers, *blue salvia*, and *scarlet verben*a; or *double delphinium*, and *scarlet geranium*, &c.
3. Blue and salmon-colour harmonise.
4. Blue and orange, the most agreeable harmony, *e. g.* *blue salvia* and *marigold*; or *blue corn-flower*, and *Coreopsis Drummondii*. (See Sect. XVII. *Blue* A, B, C, D, E, F.)
5. Blue and yellow harmonise, though inferior to, and less warm and rich than, blue with orange (*e. g.* *blue salvia* and *yellow calceolaria*). But blue should not be placed between two yellows (nor a yellow between two blues), except in certain cases, as when a blue is separated from a red on one side, and from a green (or other colour) on the other, by a yellow line.
6. Blue and white harmonise.
7. Blue and silver harmonise, but cold.
8. Blue and black harmonise. But if red is added they are wanting; and require the addition of white, or yellow, or orange. (See *Blue*, A 17, in Sect. XVII.)
9. Blue and horsechesnut harmonise, and have a rich effect.
10. Blue and chesnut harmonise.
11. Blue and chocolate harmonise.
12. Blue and brown harmonise.

* By this arrangement I have generally placed the harmonious combinations in the beginning, and the discords at the end. Those with the number followed by a letter, as 1a, show that the same combination is given elsewhere, if referred to under a name in italics, as here under *crimson*.

13. Blue and stone-colour harmonise, but the blue is rather too powerful for it.
14. Blue and drab harmonise, but the blue is rather too powerful.
15. Blue and pink, a poor effect, but not a discord.
16. Blue and peach, a poor effect, the blue also overpowers its companion.
17. Blue and green are wanting, and require another colour to complete the harmony.
18. Blue and purple harmonise by analogy, but wanting; they require the addition of scarlet and gold.*
19. Blue and blue-purple wanting by analogy. This blue-purple is what is generally called puce.
20. Blue and lilac wanting by analogy, and poor.
21. Blue and grey harmonize, but wanting, and seldom useful in combination with others; except when grey is employed as a ground.

HUES OF BLUE:—

Sky-blue. This is what we call *sky-blue*, but the name is indefinite. Blue of the sky is very different; it is that of a southern climate (see p. 65) and is the true blue colour.

1. Sky-blue and lilac wanting by analogy, and poor.
2. Sky-blue and pink poor.
3. Sky-blue and white poor and cold. (Other combinations are not deserving of notice.)

Torquoise-blue and drab (nankin, fawn, and light chesnut) harmonise.

Yellow. (See *Blue, Gold, Canary, Drab, Stone-colour.*) Yellow must be used in moderate proportions, as already shown p. 94, Sect. III.; and is very inferior in effect to gold, the place of which, indeed, it can by no means hold (see *Gold*). It is also very inferior to orange in many cases; but it serves to brighten up a composition, to separate blue and red, and to form a harmonious combination with them. (By yellow I mean *Crome* No. 2. See pp. 67, 87. In flowers, *yellow calceolaria*, *broom*, and *furze*.)

1. Yellow and black harmonise; but are inferior to and colder than orange and black, and not so well balanced. (See Sect. XVII. *Black with Yellow*.)
2. Yellow and green harmonise, but inferior to orange and green.
3. Yellow and horsechesnut-colour harmonise; e.g. the y. petals of the *hollyhock* and its purple eye (but y. not so rich as orange).

* When marked as "wanting," the colours required to complete their harmonious effect will be generally found in Sect. XVII. (where several colours are combined), provided they are of sufficient importance to be recommended for combination in designs.

4. Yellow and brown harmonise, but inferior to No. 3. (See *Brown*.)
5. Yellow and chesnut harmonise *, but wanting by analogy.
6. Yellow and purple harmonise, as in the *heartsease*.
- 7a. Yellow and red-purple wanting and disagreeable, and the purple has a brown appearance.
8. Yellow and pink-purple, or mulberry, wanting and disagreeable, but not a positive discord.
9. Yellow and blue-purple harmonise, as in one kind of *heartsease*, but colder than and inferior to orange.
10. Yellow and white wanting, and poor by daylight ; but they light up well at night.
- 10a. Yellow and gold (see *Gold*) harmonise by analogy, but wanting by analogy.
11. Yellow and orange harmonise by analogy, but wanting by analogy. They would be improved by blue and black.
12. Yellow and red harmonise, but wanting, they require blue. (See Sect. XVII. *Blue*, A 1, 2, 3 ; B 1, 2, 6 ; C 1, 2, 3, 4, 5 ; and F 1, 2, 3, 4, 5, 6, 7, 8, 9.)
13. Yellow and scarlet wanting by analogy.
14. Yellow and crimson harmonise, and better than the two preceding, but inferior in effect to crimson with orange or gold ; and the yellow is overpowered.
15. Yellow and pink discord, disagreeable, and poor.
16. Yellow and peach discord, disagreeable, and poor.
17. Yellow and salmon-colour poor, and wanting by analogy.
18. Yellow and grey poor and wanting.
19. Yellow and slate-colour wanting.
20. Yellow and lilac wanting. (See *Lilac*, C 2, Sect. XVII.)
21. Yellow and drab wanting.
22. Yellow and buff wanting by analogy.
23. Yellow and silver wanting, but light up at night.

Canary is not sufficiently powerful to combine with most colours, and generally offends, in combinations, against the rule of having the tones of equal intensity. (p. 99, Sect. VI.)

1. Canary and blue harmonise, but are rather cold ; and the canary overpowered by the blue.
2. Canary and yellow wanting by analogy.
3. Canary and crimson harmonise, but the canary overpowered by the crimson ; cerise would be rather better.
4. Canary and green poor. The canary is overpowered, and takes a greenish hue.

* Chesnut colour is, from custom, considered lighter than that of the Spanish chesnut fruit, and I therefore apply it according to common acceptation. Use horsechesnut for the richest colour of this fruit.

5. Canary and black harmonise, but the black is too powerful for the canary.

Straw-colour, and *Lemon-colour*, and *Buff* are open to the same objection in combination as canary, being overpowered by most colours; — as is the pale yellow of *yellow hawkweed*.

Buff. (See *Yellow*, *Gold*, *Red*, *Crimson*, *Purple*, *Blue-purple*, *Lilac*, *Green*, *Blue-green*, *Black*, *White*, *Grey*, *Brown*, *Chesnut*, *Drab*, *Stone*.)

1. Buff and blue harmonise, but buff overpowered by its companion.
2. Buff and crimson harmonise, but buff overpowered by its companion.
3. Buff and scarlet harmonise, but buff overpowered by its companion.
4. Buff and purple harmonise, but buff overpowered by its companion.
5. Buff and blue-purple harmonise, but buff overpowered by its companion.
6. Buff and chesnut wanting; they would be better with blue, or with blue and black, and scarlet.

Gold. (See *Orange*, *Red*, *Slate*, *Brown*, *Chesnut*.) Gold is more beautiful in combination with other colours than yellow, which is harsh; and it would be impossible to use the same quantity of yellow as gold, either as a ground, or in combination with other colours. (See p. 107.)

1. Gold and green pleasing harmony.
2. Gold and blue pleasing harmony.
3. Gold and crimson rich harmony.
4. Gold and purple rich harmony.
5. Gold and scarlet rich harmony, but from greater analogy it is inferior to No. 3.
6. Gold and horsechesnut rich harmony.
7. Gold and lilac harmonise (as do gold and lavender). (See *Lilac*, A, B, C, D, Sect. XVII.)
8. Gold and black harmonise.
- 8a. Gold and white (see *White*) harmonise, but wanting.
9. Gold and yellow wanting by analogy, but light up well by night.
10. Gold and grey harmonise, but cold and wanting.
11. Gold and buff wanting by analogy.
12. Gold and drab wanting and poor.

Orange. (See *Blue*, *Yellow*, *Scarlet*, *Drab*, *Stone-colour*.) Orange is the colour of the fruit, and of the *Coreopsis Drummondii*, &c.

1. Orange and black harmonise better than yellow and black.

- 1a. Orange and blue. (See *Blue* No. 4.)
2. Orange and horsechesnut harmonise very agreeably. (See Sect. XVII. *Blue*, B 6a, F 5.)
3. Orange and brown harmonise very agreeably.
4. Orange and purple (or red-purple) harmonise very agreeably as centre (stamens) and petals of the *Jacobæa*, or *Senecio*.
5. Orange and blue-purple (or puce) harmonise.
6. Orange and green harmonise very agreeably, as the flower and leaves of *Coreopsis Drummondii*.
7. Orange and white wanting, but light up well by candlelight.
8. Orange and gold harmonise by analogy, but wanting. Orange will not take the place of gold, and an orange ground is poor and dead compared to one of gold.
- 8a. Orange and yellow wanting by analogy. (See *Yellow*, No. 11.)
9. Orange and red harmonise by analogy, but wanting.
10. Orange and salmon-colour wanting by analogy.
11. Orange and crimson rich; but wanting. (See Sect. XVII. *Blue*, A 4; E 6; F 2, 3.)
12. Orange and slate-colour disagreeable.
13. Orange and lilac disagreeable.
14. Orange and grey disagreeable.
15. Orange and drab wanting.
16. Orange and chesnut wanting.
17. Orange and silver wanting, but lights up at night. *Silver* is so seldom required for ornamentation that I do not think it necessary to consider its combination with colours.

Salmon-colour. (See *Blue*, *Yellow*, *Orange*, *Red*, *Purple*, *Green*.)

Red-Orange (red-lead orange) differs very much from the yellow orange above. (In flowers, the pistil of the *saffron crocus*.)

1. Red-orange and black, wanting, and very inferior to yellow orange with black.
2. Red-orange and blue harmonise.
3. Red-orange and brown wanting by analogy.
4. Red-orange and purple wanting (and by analogy, if a red-purple).

Red. (See *Blue*, *Yellow*, *Orange*, *Purple*, *Black*.) Red is less suited for ornamentation than scarlet, and crimson. (In flowers it is the colour of the original *Verbena Melindris*.)

- 1a. Red and green wanting. (See Sect. XVII. *Blue*, B 2; C 1, 8; E 1, 2; F 1.) When the red approaches to pink, a discord; when the red has a scarlet hue and the green is of a bright and rather yellow hue the combination is less disagreeable than when the latter is a blue-green; and though this may be contrary

to theory, which requires more blue to balance the red and yellow of the scarlet, the fact is proved by experience; thus, the flower and leaf of the *scarlet geranium* accord better than the same flower with the blue leaf of the *Iris*, or *Flag*. (See pp. 74, 100.)

2. Red and blue-green disagreeable.
3. Red and olive-green discord.
- 3a. Red and tea-green. (See *Tea-green*; and *Crimson*.)
4. Red and purple wanting. (See Sect. XVII. *Blue*, C 2, 5; E 3, 4; F 1.)
5. Red and blue-purple wanting.
6. Red and pink-purple, or mulberry colour, wanting by analogy.
7. Red and claret-purple wanting by analogy.
8. Red and horsechesnut wanting by analogy.
- 8a. Red and black. (See *Black*.)
9. Red and white harmonise, but wanting. (See Sect. XVIII.)
10. Red and scarlet wanting by analogy.
11. Red and pink wanting by analogy.
12. Red and pink wanting by analogy.
13. Red and salmon-colour wanting by analogy.
14. Red and brown wanting by analogy. (See Sect. XVII. *Blue*, B 1; C 4; E 4.)
15. Red and chesnut more wanting than brown.
16. Red and canary wanting, and the red overpowers its companion.
17. Red and buff wanting, and the red overpowers the buff.
18. Red and straw-colour wanting, and the red overpowers its companion.
19. Red and gold harmonise, but inferior to crimson and gold. (See *Gold*.)
20. Red and grey harmonise, but wanting.
21. Red and lilac-colour wanting. Cerise and lilac would be better.
22. Red and slate-colour wanting.
23. Red and drab wanting, and the red overpowers it.
24. Red and stone-colour wanting, and the stone-colour is overpowered.
25. Red and fawn-colour wanting, and the red overpowers it.

HUES OF RED:—

Scarlet. (See *Blue*, *Yellow*, *Orange*, *Gold*, *Red*, *Crimson*, *Purple*, *Lilac*, *Green*, *Black*, *White*, *Brown*, *Chesnut*, *Drab*.) Scarlet is a colour which is seen at a very great distance (on which account it has been objected to for soldiers' uniforms); and it is better adapted from its brightness than red for ornamentation, except in glass, in which translucent material the ruby colour is more effective; and when united with blue and yellow in a glass

window, ruby-colour gives a brilliant and pleasing concord. (In flowers, the *Tom Thumb geranium*, *scarlet lychnis*, and *corn poppy*.)

1. Scarlet and green; better than red and green, and still better than crimson and green, but wanting. (See *Red* and *Green*; see Sect. XVII. *Blue*, A, 8, 9; B 2; C 1, 8, 11, 22; D 1, 2, 7; E 1, 2, 3, 7; F 1, 9.)
2. Scarlet and blue-green wanting and disagreeable.
3. Scarlet and olive-green discordant.
4. Scarlet and tea-green disagreeable.
5. Scarlet and purple harmonise, but wanting. (See *Blue*, A 7; B 7, 8, 8a, 9; C 2, 5, 11; D 3, 7, 9; E 1, 3, 4, 5, 8; and F 1, 5, 7, 8.)
6. Scarlet and blue-purple harmonise, but wanting.
7. Scarlet and claret-purple harmonise, but wanting.
8. Scarlet and horsechestnut harmonise, but wanting. (See Sect. XVII. *Blue*, B 6a; C 21; and F 5.)
- 8a. Scarlet and black. (See *Black*.)
9. Scarlet and white harmonise, but wanting. (See Sect. XVII. *Blue*, A 11; B 4, 5, 6, 9, 10; C 1, 2, 3, 4, 6, 7, 13, 22; D 1, 2, 3, 5; E 1, 2, 3, 4, 5, 7, 8; and F 1, 8, 9, and see Sect. XVIII.)
10. Scarlet and crimson harmonise, but wanting by analogy.
11. Scarlet and pink harmonise, but wanting by analogy.
12. Scarlet and brown wanting. (See Sect. XVII. *Blue*, D 5; E 4, 5, 7; F 8, 9.)
13. Scarlet and chesnut wanting by analogy.
14. Scarlet and orange harmonise, but wanting by analogy.
- 14a. Scarlet and yellow. (See *Yellow*.)
15. Scarlet and canary wanting and poor, and the scarlet overpowers it.
16. Scarlet and buff wanting and poor, and the scarlet overpowers it.
17. Scarlet and straw-colour wanting and poor, and the scarlet overpowers it.
- 17a. Scarlet and gold. (See *Gold*.)
18. Scarlet and grey harmonise, but wanting.
19. Scarlet and lilac wanting.
20. Scarlet and slate-colour wanting.
- 20a. Scarlet and drab wanting. (See *Drab*.)
21. Scarlet and stone-colour wanting.
22. Scarlet and fawn-colour wanting.

Red-lead-colour has nearly the same conditions as scarlet, and as red-orange.

Crimson. (See *Yellow*, *Canary*, *Gold*, *Orange*, *Buff*, *Red*, *Scarlet*, *Lilac*,

Green, Black, White, Brown, Chesnut, Drab.) Crimson combines less pleasingly than scarlet with most colours; but is useful when great richness is required. (In flowers, inside of *cactus speciocissimus*.)

1. Crimson and blue harmonise, but wanting; and they do not combine so well as blue and scarlet; they want yellow.
2. Crimson and purple wanting. (See Sect. XVII. *Blue*, A 7a; B 6b; C 9a; D 4; E 8; F 3, 4, 5, 6, 7.)
3. Crimson and blue-purple wanting.
4. Crimson and horsechesnut wanting. (See Sect. XVII. *Blue*, B 6a; C 21; D 5; F 4, 5.)
5. Crimson and slate-colour harmonise, but the crimson overpowers it.
6. Crimson and pink wanting by analogy.
7. Crimson and peach wanting by analogy, and the crimson overpowers it.
8. Crimson and tea-green wanting, and the crimson overpowers it. Cerise and tea-green are preferable. (See *Tea-green*.)
9. Crimson and olive-green discordant.
10. Crimson and grey wanting.

Red-crimson. Red-crimson and orange harmonise, and are a rich concord, as the petals and anthers of the crimson (or old *damask*) rose.

Brown-crimson, Pink-crimson, Purple-crimson, Blue-crimson (or *Groseille*), are seldom used in combination with other colours for ornamentation, for which they are less suited than for dresses.

Cerise. (See *Red, Crimson, Tea-green, Slate-colour*.)

1. Cerise and scarlet wanting by analogy.
2. Cerise and blue wanting.
- 2a. Cerise and lilac harmonise. (See *Lilac*.)

Pink is an intractable colour for combination. It looks better alone; but, like peach-colour, it may be used *sometimes* with others in patterns. Perhaps black combines with it better than any other colour, as black lace on a lady's pink dress. A dark purple may also be used instead of black. Pink is suited to young people without any attempt to combine it with other colours. (See p. 106.)

1. *Rose-colour*; 2. *Deep Rose-colour*. The same conditions apply to rose-colour as to pink. There is, however, a difference in the combination with green, which, unbearable with pink, may be tolerated with rose-colour; though rarely, except in the case

of rose-coloured flowers (as roses, camelias, &c.) with green leaves; but these leaves when of a yellowish tinge (like ferns) are better than of bluish-green. No. 2 is better suited to combine with green than No. 1. But of colours in flowers, *see* pp. 19, 100, 106.

Peach-colour — properly that of the peach blossom, but conventionally applied to another colour, to a lilac-purple. A delicate colour, not well suited for combination, and better alone, like pink. There are some cases where it may come in well among a number of secondary and other colours, as in glass windows, carpets, &c., but sparingly. (*See Blue, Yellow.*) It has much the same conditions as light pink.

Purple. (*See Blue, Yellow, Gold, Orange, Red, Crimson, Black, White.*)

1. Purple and gold; rich harmony.
- 1a. Purple and yellow harmonise. (*See above, Yellow; and see Blue in Sect. XVII. A 26; B 8, 18; C 2, 5, 9a, 16, 18, 19, 21; D 3, 4, 7, 9; E 1, 4, 8; F 1, 3, 4, 6, 7, 8.*)
2. Purple and scarlet harmonise, but wanting. (*See Blue in Sect. XVII. A 7; B 7, 8, 8a, 9; C 2, 5, 11, 21; D 3, 7, 9; E 1, 3, 4, 8; F 1, 8.*)
3. Purple and blue-purple wanting by analogy.
4. Purple and maroon wanting by analogy.
5. Purple and lilac wanting by analogy.
6. Purple and slate-colour wanting by analogy.
7. Purple and pink wanting by analogy, and the pink overpowered by it.
8. Purple and peach-colour wanting by analogy, and the peach-colour overpowered by it.
9. Purple and grey poor and wanting.
10. Purple and brown wanting. (*See Sect. XVII. Blue, C 16, 18; E 4; F 7, 8.*)
11. Purple and chesnut wanting and disagreeable.
12. Purple and horsechesnut, wanting and disagreeable.
13. Purple and drab wanting, and the drab overpowered by it.
14. Purple and stone-colour wanting and poor, and the stone-colour overpowered by it.
15. Purple and green the worst kind of discord.*
16. Purple and citrine discord. (*See Plate III. fig. 9.*)

Blue-purple, generally called *Puce*, but more properly *Damson-colour*.

* This applies to all purples and greens.

(See *Blue, Yellow, Orange, Red, Crimson, Purple-slate, Blue-green, Black, White, Grey, Brown, Chesnut, Drab, Stone-colour.*)

1. Blue-purple and gold harmonise.
2. Blue-purple and scarlet harmonise, but wanting.
3. Blue-purple and lilac wanting by analogy.
4. Blue-purple and buff wanting.
5. Blue-purple and horsechesnut wanting.
6. Blue-purple and chesnut wanting.
7. Blue-purple and canary wanting and cold.
8. Blue-purple and green discord.

Pink-purple, or Red-purple, or Mulberry-colour.

1. Mulberry-colour and blue wanting.
2. Mulberry-colour and orange harmonise (with yellow rather cold).
3. Mulberry-colour and gold rich harmony.
4. Mulberry-colour and green discord.

Claret-purple.

1. Claret-purple and gold rich harmony.
2. Claret-purple and orange harmonise.
3. Claret-purple and yellow wanting, the yellow is too cold.
4. Claret-purple and blue wanting by analogy.
5. Claret-purple and red wanting by analogy.
6. Claret-purple and black wanting.
7. Claret-purple and green discord.

Brown claret-purple, or Maroon (properly chesnut, *Marron*, but changed by custom.) — Mr. Field says maron or marrone “is composed of black and red, or black and purple, or black and russet, or with black and any other denomination of pigments in which red predominates.” Maroon has nearly the same conditions as the two last.

Lilac. (See *Blue, Yellow, Orange, Buff, Gold, Purple, Blue-purple, Slate, Blue-green, Black, White, Grey, Brown, Chesnut, Drab, Stone-colour.*)

1. Lilac and gold harmonise. (See *Gold*; and see *Lilac* in Sect. XVII.)
2. Lilac and canary poor.
3. Lilac and straw-colour poor.
4. Lilac and scarlet harmonise, but lilac is better with cerise.
5. Lilac and cerise harmonise.
6. Lilac and crimson harmonise, but overpowered by the crimson.
7. Lilac and horsechesnut (or brown) wanting.
8. Lilac and green discord.

Lavender follows nearly the same conditions as *Lilac*.

Slate-colour. (See *Yellow, Orange, Buff, Red, Purple, Green, White, Brown, Chesnut*.) It is a heavy colour, inferior to lavender and lilac.

1. Slate-colour and black harmonise.
2. Slate-colour and cerise harmonise.
3. Slate-colour and scarlet harmonise.
4. Slate-colour and gold harmonise.
5. Slate-colour and crimson harmonise, but overpowered by the crimson.
6. Slate-colour and blue wanting by analogy.
7. Slate-colour and blue-purple wanting by analogy.
8. Slate-colour and lilac wanting by analogy.
9. Slate-colour and grey wanting by analogy.
10. Slate-colour and drab poor and wanting.
11. Slate-colour and stone-colour wanting.
12. Slate-colour and green discord.

Evening Primrose (Primula) has conditions very similar to *peach-colour*.

Green. (Bright green.) By *green*, it should be understood that I mean a bright hue, partaking of emerald, moss, verdigris, or a full grass-green (see pp. 87, 88), and not any of those blue-greens, olive-greens, and others, too often combined with other colours. (See pp. 74, 100.)

See *Blue, Yellow, Gold, Orange, Red, Crimson, Purple, Blue-purple, Lilac, White*; see also various combinations of *Green* in *Blue*, Sect. XVII. A, B, C, D, E, F.)

1. Green and blue-green wanting by analogy.
- 1a. Green and gold a rich harmony. (See *Gold*.)
2. Green and straw-colour wanting.
3. Green and canary-colour wanting.
4. Green and buff wanting.
5. Green and red wanting and disagreeable. (See p. 102.)
6. Green and scarlet wanting; but not discordant, as green is with crimson.
7. Green and slate-colour disagreeable and discordant.
8. Green and black do not combine well, each spoiling the effect of the other.
9. Green and grey disagreeable.
10. Green and brown wanting and discordant.
- 10a. Green and horsechesnut wanting and discordant.
11. Green and chesnut wanting and discordant.

12. Green and chocolate-colour discordant.
13. Green and drab disagreeable.
14. Green and stone-colour disagreeable.
15. Green and fawn-colour disagreeable and discordant.
16. Green and plum-colour discord.
17. Green and pink discord.
18. Green and crimson discord.
19. Green and peach discord.
20. Green and purple discord.
21. Green and grey wanting and disagreeable.
22. Green and russet discord. (*See Plate III. fig. 10.*)

HUES OF GREEN:—

Dark Blue-green. (*See Canary, Red, White.*)

1. Blue-green and orange wanting.
2. Blue-green and yellow wanting and harsh.
3. Blue-green and blue wanting by analogy, and disagreeable.
4. Blue-green and scarlet wanting.
5. Blue-green and pink discord.
6. Blue-green and crimson discord.
7. Blue-green and buff disagreeable.
8. Blue-green and purple discord.
9. Blue-green and lilac discord.
10. Blue-green and slate-colour discord.

Other hues of green, as rifle-green *, pea, parrot, olive, sea, apple, leek, sap, and others, are little used for ornamentation, except in particular cases, I shall therefore only notice tea-green.

Tea-green. (*See Scarlet, Crimson, Green.*) *See p. 97.*

1. Tea-green and cerise ; almost the only agreeable combination with tea-green ; and then the latter should be a ground. Tea-green is one of those colours which looks better alone.
2. Tea-green and red discordant, and overpowered by the red.
3. Tea-green and scarlet disagreeable.
4. Tea-green and blue wanting.
5. Tea-green and yellow wanting.

Russet, Citrine, Olive (the three tertiaries), are of little importance in combination with other colours. There are few with which

* Rifle-green may serve as a ground for some draperies, but is too heavy for general use in ornamentation. It has been properly objected to for the uniform of riflemen, being seen at a great distance, when it looks black ; grey would of course be better suited for that purpose.

they could be united for decorative purposes; and I have already shown (pp. 92, 93) how badly they accord with the primary and their accidental secondary colours.

Black. (See *Blue, Yellow, Canary, Gold, Orange, Pink, Slate-colour, Green, Grey, Brown, Chesnut*; see various combinations with black, under *Blue, Red, Black*, in Sect. XVII.)

1. Black and white harmonise by contrast. They give each other their full power when in juxtaposition — the black looks blacker, and the white whiter; but they are rather cold and harsh when without any other colour.
- 1a. Black and blue. (See *Blue*.)
- 1b. Black and yellow harmonise; they are also a strong contrast, and set off each other (see *Yellow*), though not to the same degree as black and white.
- 1c. Black and orange. (See *Orange*.)
2. Black and buff harmonise, but the black overpowers its companion.
3. Black and straw-colour harmonise, but the black is overpowering.
4. Black and red injure each other's effect, the black assuming a rusty tinge, and the red being dulled. (See Sect. XVI. *Black; Red; and White*; and above, p. 102.)
5. Black and scarlet harmonise, but wanting.
6. Black and crimson harmonise, but wanting and rather heavy; black looks better with cerise.
7. Black and purple harmonise, but wanting and gloomy.
8. Black and blue-purple harmonise, but wanting and gloomy.
9. Black and lilac, or black and lavender-colour, harmonise.
10. Black and pink-purple or mulberry harmonise, but wanting and gloomy.
11. Black and horsechesnut harmonise, but wanting and gloomy.
12. Black and drab harmonise, and look well, though the black is rather overpowering.
13. Black and stone-colour wanting.
14. Black and peach wanting and disagreeable.

A black border to grey, or to drab, or to a blue-grey, is harmonious.

Grey. (See *Blue, Yellow, Gold, Orange, Red, Crimson, Purple, White, Brown, Chesnut*.)

1. Grey and scarlet harmonise, but wanting.
2. Grey and blue-purple wanting.
3. Grey and lilac wanting by analogy.
4. Grey and black wanting by analogy.
5. Grey and drab wanting.
6. Grey and stone-colour wanting.

7. Grey and canary wanting.

8. Grey and buff wanting.

Grey is a very good ground for other colours.

White. (See *Blue*, *Sky-blue*, *Yellow*, *Orange*, *Red*, *Black*; and see Sect. XVII. *Blue*, A 10, 11; B 4, 5, 6, 9, 10; C 1, 2, 3, 4, 6, 7, 9, 10, 13, 20; D 1, 2, 3, 4, 5, 6, 8, 10; E 1, 2, 3, 4, 5, 6, 7, 8; F 1, 2, 3, 4, 6, 7, 8, 9; and *Black*; and *White*.)

1. White and gold harmonise, but wanting by daylight, except when gold is used to pick out the pattern upon white; they light up well together by candlelight.
2. White and red. (See above, *Red*, 9.)
3. White and scarlet harmonise, but white overpowered by the scarlet, except when in much smaller quantity.
4. White and crimson harmonise, but white overpowered by the crimson, except when in much smaller quantity.
5. White and brown harmonise, but white overpowered by the brown, except when in much smaller quantity.
6. White and chocolate-colour harmonise, but white overpowered by the chocolate-colour, except when in much smaller quantity.
7. White and purple wanting, and white overpowered by the purple, except when in much smaller quantity.
8. White and blue-purple wanting, and white overpowered by the blue-purple, except when in much smaller quantity.
9. White and lilac wanting and poor.
10. White and slate-colour wanting and poor.
11. White and green wanting, cold, and poor.
12. White and blue-green wanting and disagreeable.
13. White and olive-green wanting and disagreeable.
14. White and tea-green wanting and disagreeable.
15. White and canary wanting.
16. White and straw wanting.
17. White and buff wanting.
18. White and grey wanting.
19. White and brown wanting.
20. White and chesnut wanting.
21. White and drab wanting and poor.
22. White and stone-colour wanting.

Brown. (See *Blue*, *Yellow*, *Orange*, *Red*, *Purple*, *Green*, *White*.)

1. Brown and gold harmonise well.
2. Brown and crimson harmonise, but wanting. (See Sect. XVII. *Blue*, D 6; E 6, 7; F 2, 6, 7.)

3. Brown and scarlet wanting. (*See* Sect. XVII. *Blue*, B 1 ; C 4 ; D 5 ; E 4, 5, 7 ; F 8, 9.)
4. Brown and purple wanting. (*See* Sect. XVII. *Blue*, C 16, 18 ; E 4, 5 ; F 6, 7, 8.)
5. Brown and lilac wanting and disagreeable.
6. Brown and black wanting. (*See* Sect. XVII. *Blue*, D 5, 6 ; E 4, 5, 6, 7 ; F 2, 6, 8, 9.)
7. Brown and grey wanting.
8. Brown and chesnut wanting by analogy.
9. Brown and buff wanting and poor.
10. Brown and drab wanting and poor.
11. Brown and silver wanting.

Red-brown. (*Chocolate* follows much the same rules as *Red-brown*.)

1. Red-brown and gold harmonise well.
2. Red-brown and black harmonise.
3. Red-brown and blue harmonise.
4. Red-brown and yellow wanting.
5. Red-brown and orange harmonise, but wanting.
6. Red-brown and lilac wanting.
7. Red-brown and red wanting by analogy.
8. Red-brown and stone-colour wanting.
9. Red-brown and drab wanting by analogy, and drab overcome by the red-brown.
10. Red-brown and green discord.

Horsechesnut, which is a richer kind of *Red-brown*, harmonises well with amber-colour, and many others. (*See Blue, Yellow, Gold, Orange, Red, Scarlet, Crimson, Purple, Lilac, Green, Black.* *See* Sect. XVII. *Blue*, B 6a ; C 21 ; E 4, 5 ; F 4, 5.)

Chesnut. (*See Blue, Yellow, Orange, Red, Purple, Green, Black, White, Brown.*)

1. Chesnut and gold harmonise.
2. Chesnut and crimson wanting.
3. Chesnut and scarlet wanting.
4. Chesnut and purple wanting.
5. Chesnut and blue-purple wanting.
6. Chesnut and lilac wanting.
7. Chesnut and grey wanting.
8. Chesnut and stone-colour wanting.
9. Chesnut and drab wanting.

Drab. (*See Blue, Yellow, Orange, Red, Purple, Green, Black, White, Brown.*)

1. Drab and scarlet harmonise, but drab overpowered by the scarlet.

2. Drab and crimson harmonise, but drab overpowered by the crimson.
3. Drab and blue-purple harmonise, but drab overpowered by the purple, and not agreeable.
4. Drab and lilac disagreeable.
5. Drab and orange wanting.
6. Drab and yellow wanting.
7. Drab and buff wanting.

Stone-colour. (See *Blue, Red, Purple, Slate, Green, Black, White, Chesnut.*)

1. Stone-colour and yellow wanting.
2. Stone-colour and orange wanting.
3. Stone-colour and buff wanting.
4. Stone-colour and blue-purple wanting.
5. Stone-colour and lilac wanting.
6. Stone-colour and brown wanting.
7. Stone-colour and drab wanting.

Fawn-colour.

1. Fawn-colour and blue harmonise, but wanting, and fawn-colour overpowered by its companion.
2. Fawn-colour and brown wanting, and fawn-colour overpowered by its companion.
3. Fawn-colour and purple wanting, and fawn-colour overpowered by its companion.
4. Fawn-colour and pink wanting and poor.

XVII. *Combinations of three or more Colours.*—As in the case of two colours in juxtaposition I place together three or more, without reference to the exact *quantity* of each; though this, as well as their arrangement, is a very important consideration in a coloured design. But as it is not my object here to enter into these questions, which would require full illustrations of each combination, I must confine myself as before to the mention of their general agreement, and refer to Sects. XVIII. XIX. for a few remarks on their quantity and arrangement. It is to be borne in mind, that when colours harmonise, it is not sufficient that they should be placed together without regard to proper order, nor should they always be placed in the same relative positions. Thus, the white, or the yellow, or the black, may sometimes be

repeated between each as a ground; and others may have one colour at one time, and a different one at another, next to them. There are also many cases where two colours, which do not accord well in juxtaposition when no others are put with them, may be made to accord by the introduction of one or two more; and even positive discords may be reconciled by the same means. (*See Sect. XX.*)

I have mentioned in Sect. XVI. p. 113, some of those colours which arranged in twos, or with one other, offer the most pleasing concords; and I shall now point out some of those which produce the most harmonious combinations with two or more companions.

1. Blue and red (or scarlet or crimson) and yellow (or gold). (*See below, Blue, A 1 and 2.*)
2. Blue and scarlet and purple and yellow (or orange, or gold) and black. (C 5.)
3. Blue and scarlet and yellow (or orange, or gold) with a small quantity of (bright) green. (B 2.)
4. Blue and scarlet and gold and white. (B 5.)
5. Blue and scarlet and white and purple and yellow (or rather gold or orange). (C 2.)
6. Blue and yellow and scarlet and white and black and orange and green. (E 2.)
7. Orange and blue and green and white and black. (C 9.)
8. Crimson (or scarlet) and yellow and blue and white and black. (C 10; *see Black, C 1.*)
9. Blue and yellow (or orange) and purple and scarlet (or crimson) and white and black. (D 3.)
10. Blue and scarlet and green and yellow (or orange or gold) and black and white. (*See Black, D 3.*)
11. Purple and scarlet and gold. (*See Purple, A 1; C 1 and E.*)

The orange here mentioned is a yellow, not a red, orange. Where scarlet is used instead of crimson, the quantity of yellow must be lessened; and where yellow is used instead of orange, it must also be in smaller quantity. Green too must always be in much smaller proportion than the other

colours combined with it, and of a bright hue. (*See* p. 16.) Dark greens are only to be used in very exceptional cases, as accessories, or in particular positions. In the following lists I have only *catalogued* the colours, stating their effect when combined; their *arrangement* will depend on the design; and the *agreement* of each colour with another in *contact* with it, will be seen in the lists in Sect. XVI.

Blue. (*See* *Yellow, Orange, Purple, Black, White, Grey.*)

A (3 colours).

1. Blue and red and yellow harmonise, if in proper proportion; but there are other more agreeable combinations with a greater number of colours, as C 5, E 1, and in these three gold is much richer than yellow for ornamentation.
2. Blue and scarlet and yellow harmonise well. (*See* Pl. iv. fig. 1.)
3. Blue and crimson and yellow harmonise well.
4. Blue and crimson and orange harmonise well.
5. Blue and crimson and gold harmonise well; very rich in furniture.
6. Blue and crimson and scarlet harmonise, but wanting by analogy of the last two. (*See* C 12; F 5.)
7. Blue and scarlet and purple harmonise, but wanting by analogy. (*See* B 7 and C 5, 11, 21; D 3, 7, 9; E 1, 3, 4, 5, 8; and F 1, 5, 7, 8.) They were the three colours used by the Israelites. (Ex. xxv. 4; xxxvi. 12.) They were apparently on a white linen ground, and had gold "tashes," and gold thread worked in.
- 7a. Blue and crimson and purple harmonise, but wanting. (*See* B 6 b; C 9a; D, 4, 9, 10; E 8; F 3, 4, 5, 6, 7.)
8. Blue and scarlet and green harmonise, but wanting, and the quantity of the green should be very small; they want yellow or orange. (*See* B 2, 10; C 1, 8, 11, 12, (22); D 1, 2, 7; E 1, 2, 3, 7; and F 1, 9. *I rarely refer to those which do not accord.*)
9. Blue and crimson and green wanting, not agreeable, and still less so if on a black ground: they would be improved by orange; or by black and yellow; or by scarlet and yellow. (*See* C 12; D 8; E 7; F 2, 3.)
10. Blue and red and white harmonise, but cold.
11. Blue and scarlet and white harmonise.
12. Blue and red and black wanting and dull; they require yellow or orange.
13. Blue and red (or scarlet) and orange harmonise, but wanting; the

blue overbalanced by the other two; they would be better with the addition of black.

14. Blue and white and orange wanting. Red should be added, and they would be improved by being on a black ground.
15. Blue and white and yellow wanting. They require a red.
16. Blue white and green wanting and cold. They require a red. (See below, C 1, 3.)
17. Blue and white and black wanting and cold. Improved by adding red or scarlet, or yellow or orange. Blue and black are harmonious, but the addition of white destroys the balance of colour. (See B 4, 5, 6.)
18. Blue and white and grey wanting, and cold. Want red, or red and yellow, or red and orange.
19. Blue and black and crimson wanting. They require orange, or yellow. (See also D 6, 8, 9, 10; E 7; F 2, 3, 4, 5, 6.)
20. Blue and black and yellow harmonise, but wanting and cold.
21. Blue and black and orange harmonise; and better than with yellow.
22. Blue and black and lilac wanting and dull. (See *Lilac* C 2, and D.)
23. Blue and black and purple wanting and dull. (See *Purple*, C 1; D and E.)
24. Blue and black and green wanting and poor.
25. Blue and yellow and green wanting.
26. Blue and yellow and purple wanting and disagreeable. (See *Blue*, C 2; D 3, 4; E 1, 4; F 1, 5, 6, 7, 8.)
27. Blue and orange and purple wanting. (See *Blue*, C 2, 11; D 4, 9; E 1, 3, 5; F 1, 3, 4, 5, 6, 8.)
28. Blue and orange and olive-green discordant. (See Pl. III. fig. 7, and p. 92.)
29. Blue and orange and green harmonise, if the blue is in full proportion for the other two; but they would be better with the addition of black.
30. Blue and purple and green discord.
31. Blue and pink and green discord.

B (4 colours).

1. Blue and red (or scarlet) and yellow and brown harmonise but poor.
2. Blue and red, or rather scarlet, and a small proportion of green and yellow (or orange or gold) harmonise well. The Egyptians used these with fillets of yellow. (See Pl. III. fig. 2; Plate IV. fig. 3.)
3. Blue and red (or scarlet) and black and yellow, or gold (or on a gold ground) harmonise.

4. Blue and red (or scarlet) and black and white harmonise, but rather cold from the cold colours predominating.
5. Blue and red (or scarlet) and white and gold harmonise well if properly arranged, the white being in small quantity.
6. Blue and red (or scarlet) and white and yellow harmonise; but not so well as with gold instead of yellow. (*See Pl. iv. fig. 4.*)
- 6a. Blue and horsechesnut and scarlet (or crimson) and orange (or yellow) harmonise.
- 6b. Blue and crimson and purple and orange harmonise. This is better than with yellow. It would be preferable with scarlet than with crimson.
7. Blue and scarlet and purple and gold harmonise well. (*See Plate III. fig. 4.*) They were used for the Ephod (Ex. xxviii. 15), the robe being blue, with a border of these colours.
8. Blue and scarlet and purple and yellow harmonise, but less well than gold.
- 8a. Blue and scarlet and purple and orange harmonise.
9. Blue and scarlet and purple and white harmonise, but less well than with orange, or gold.
- 9a. Blue and scarlet and orange (or gold) and maroon (or on a maroon ground) harmonise.
10. Blue and scarlet and green and white harmonise, but wanting.
11. Blue and crimson and green and white wanting and disagreeable. No. 2 is preferable.
12. Blue and black and white and yellow (or gold) harmonise, but wanting and cold.
13. Blue and black and white and purple (or lilac) wanting.
14. Blue and black and white and crimson wanting — want yellow or gold.
15. Blue and black and yellow and crimson harmonise, but heavy; better with scarlet.
16. Blue and black and white and grey (or on a black ground) wanting and cold.
17. Blue and black and white and orange harmonise.
18. Blue and yellow and purple and orange harmonise, but wanting.
19. Blue and yellow and brown and green wanting and discordant.
20. Blue and green and red with black lines between them heavy.
21. Blue and green and red and white harmonise, but wanting.

C (5 colours).

1. Blue and red (or scarlet) and white and green and yellow (or rather gold* or orange) harmonise.

* It is scarcely necessary to add that gold may generally take the place of orange, or of yellow, and is almost always superior in effect to them.

2. Blue and red (or scarlet) and white and purple and yellow, or rather gold or orange harmonise well. (*See* Pl. III. fig. 11; and A 7; B 7.)
3. Blue and red (or scarlet) and green and yellow (or gold) on a white ground harmonise.
4. Blue and red (or scarlet) and yellow (or gold) and brown and white harmonise.
5. Blue and red (or scarlet) and yellow (or orange or gold) and purple and black harmonise well. (*See* Pl. IV. fig. 2.)
6. Blue and red (or scarlet) and orange and chesnut and white harmonise.
7. Blue and red (or scarlet) and yellow (or rather gold or orange) and black and white harmonise, and are better than the three primaries alone, but they could be improved still farther by a little green. (*See* p. 111, and Pl. IV. fig. 5.)
8. Blue and scarlet (or red) and a little green and yellow and black harmonise, but wanting. This was also an Egyptian combination.
9. Blue and orange and green and black and white (or on a white ground) harmonise, and have an agreeable effect, as in some of the tiles at the Alhambra. This also shows that combinations may even be made without any positive red or scarlet, and the small quantity in the orange is sufficient, as in that most harmonious combination—blue and orange. (*See* Pl. III. figs. 1, 12.)
- 9a. Blue and orange (or yellow) and crimson and black and purple harmonise, but dull and wanting. (*See* D 10; F 3, 4, 5, 6.)
10. Blue and crimson and yellow and black and white harmonise well.
11. Blue and orange (or gold) and green and purple and scarlet harmonise.
12. Blue and crimson and green and yellow and scarlet harmonise.
13. Blue and crimson and yellow and white and scarlet harmonise.
14. Blue and orange and black and purple and white (or on a white ground) wanting. (*See* D 10; E 3, 5, 8; F 1, 3, 4, 6, 8.)
15. Blue and orange and brown and yellow and white wanting.
16. Blue and orange and brown and yellow and purple wanting.
17. Blue and crimson and yellow and green and white unsatisfactory. It would be better without green, with scarlet instead of crimson, and wants black.
18. Blue and yellow and green and purple and brown discord.
19. Blue and yellow and green and purple and white disagreeable.
20. Blue and green and purple and white and orange wanting, and depending much on the proportions and arrangement of the

colours. In these the blue should be in greater quantity than any one of the others; as in other combinations.

21. Blue and horsechesnut and scarlet (or crimson) and orange (or yellow) and purple harmonise.
22. Blue and white and scarlet and yellow and green wanting and poor.
23. Blue and white and black and yellow (or orange) and scarlet harmonise.

D (6 colours).

1. Blue and scarlet and green and yellow and black and white harmonise. (*See Pl. v. fig. 1.*)
2. Blue and scarlet and green and orange (or rather gold) and black and white harmonise. (*See Pl. i.*)
3. Blue and scarlet and yellow (or orange or gold) and purple and black and white harmonise well.
4. Blue and crimson and yellow (or orange or gold) and purple and black and white harmonise.
5. Blue and scarlet and yellow (or orange or gold) and black and white and brown (or chesnut) harmonise.
6. Blue and crimson and yellow (or orange or gold) and black and white and brown (or horsechesnut, or chesnut) harmonise, but better with scarlet.
7. Blue and scarlet and yellow (or orange or gold) and green and black and purple harmonise, not agreeably, better without green. (*See C 5.*)
8. Blue and crimson and yellow (or orange or gold) and green and black and white harmonise, but better with scarlet.
9. Blue and scarlet (or crimson or red) and orange and purple and black and a little yellow harmonise.
10. Blue and crimson and orange (or gold) and purple and black and white harmonise, but wanting. (*See E 8.*)

E (7 colours).

1. Blue and scarlet (or red) and orange (or gold) and a little green and purple and white and yellow harmonise, but want black.
- 1a. Blue and scarlet and orange and green and purple and yellow and black harmonise. (*See Pl. iii. fig. 3.*)
2. Blue and scarlet (or red) and yellow and green and orange and black and white harmonise. (*See Pl. v. fig. 2.*)
3. Blue and scarlet (or red) and green and orange and black and purple and white harmonise.
4. Blue and scarlet (or red) and black and white and yellow and brown (or horsechesnut) and purple harmonise.

5. Blue and scarlet (or red) and black and white and orange and brown (or horsechesnut) and purple harmonise, but better without the purple.
6. Blue and crimson and yellow and black and white and brown and orange harmonise, but wanting.
7. Blue and crimson (or scarlet) and yellow and a little green and black and brown and white harmonise, but not very agreeably.
8. Blue and crimson (or scarlet) and orange (or gold) and black and white and purple and yellow harmonise. (*See Pl. iv. fig. 6.*)

F (8 colours).

1. Blue and scarlet (or red) and green and orange and black and yellow and purple and white harmonise (*see Pl. II.*), but they would have a good effect even without the purple, as E 2; and C 9 shows how well blue, orange, green, black and white look without red, yellow, or purple. (*See p. 76, and Pl. III. fig. 1.*)
2. Blue and crimson and yellow and black and brown and orange and green and white harmonise.
3. Blue and crimson and yellow and black and a little green and orange and white and purple harmonise.
4. Blue and crimson and yellow and black and horsechesnut and orange and white and purple harmonise.
5. Blue and crimson and yellow and black and horsechesnut and scarlet and orange and purple harmonise.
6. Blue and crimson and yellow and black and white and purple and brown and orange harmonise.
7. Blue and crimson and yellow and black and white and purple and scarlet and brown harmonise, but wanting.
8. Blue and scarlet and yellow and black and white and brown and orange and purple harmonise.
9. Blue and scarlet and yellow and brown and black and white and orange and green harmonise.

Yellow. (*See Blue, Red, Scarlet, Black, Grey.*)

A (3 colours).

1. Yellow and scarlet and purple harmonise, but want blue. (*See Blue, B 8; C 7; D 3, 7, 9, 10; E 1, 4, 8; F 1, 5, 6, 7, 8.*)
2. Yellow and crimson and purple harmonise, but wanting. (*See Blue, C 21; D 4, 9; E 8; F 3, 4, 5, 6, 7.*)
3. Yellow and scarlet and green wanting and poor. (*See Blue, B 2; C 1, 8, 12; D 1, 7; E 1, 2, 7; F 1, 9.*)
4. Yellow and red and green wanting, and poor.

5. Yellow and crimson and green wanting. (See *Blue*, C 12, 17; D 8; E 7; F 2, 3.)
6. Yellow and brown and green wanting and disagreeable. (See *Blue*, E 7; F 2.)
7. Yellow and crimson and brown wanting. (See *Blue*, D 6; E 6, 7; F 2, 7.)
8. Yellow and white and green wanting, poor and cold. (See *Blue*, D 8; E 1, 2, 7; F 1, 3, 9.)
9. Yellow and white and scarlet wanting. (See *Blue*, C 1, 2, 3, 7; D 1, 3, 5; E 1, 2, 4, 7, 8; F 1, 8, 9.)
10. Yellow and white and purple (see *Lilac*) harmonise, but wanting. (See *Blue*, C 2; D 3, 4; E 1, 4, 8; F 1, 3, 4, 6, 8.)
11. Yellow and brown and scarlet wanting. (See *Blue*, D 5; E 4, 7; F 8, 9.)
12. Yellow and brown and purple wanting and disagreeable. (See *Blue*, E 4; F 8.)
13. Yellow and green and purple discord. (See *Blue*, D 7; E 1; F 1, 3.)
14. Yellow and green and puce discord.
15. Yellow and green and pink discord.
16. Yellow and green and chocolate discord.
17. Yellow and green and black wanting and disagreeable. (See *Blue*, C 8; D 1, 7, 8; E 2, 7, 8; F 2, 3, 9.)
18. Yellow and purple and citrine discord. (See Pl. III. fig. 8, and p. 93.)

B (4 colours).

1. Yellow and scarlet and purple and blue harmonise, and better with scarlet than with crimson. (See *Blue*, B 8; C 2, 5; D 3, 9; E 4, 8; F 1, 8.)

Gold. (See *Blue*, *Red*, *Scarlet*, *Black*, *Purple*, *Lilac*, *Grey*.)

Orange. (See *Blue*, *Red*, *Scarlet*, *Black*, *Purple*, *White*, *Grey*.)

A (3 colours).

1. Orange and crimson and blue harmonise. (See *Blue*, B 6 b; E 6, 8; F 2, 3, 4, 5.)
2. Orange and crimson and purple, or lilac, harmonise. (See *Blue*, D 9, 10; E 8; F 3, 4, 5.)
3. Orange and green and blue wanting. (See below, B 2; and *Blue*, B 2; C 1, 9, 11; D 2, 8; E 1, 2, 3; F 1, 2, 3, 9.)

B (4 colours).

1. Orange and drab and blue and scarlet harmonise, but wanting. (See below, C 1.)

2. Orange and green and blue and scarlet harmonise. (*See above, A 1.*)

C (5 colours).

1. Orange and drab and blue and scarlet and black harmonise.
2. Orange and blue and scarlet and black and white harmonise.*
(*See Blue, D 2; E 2, 3, 5, 8; F 1, 8, 9.*)
3. Orange and blue and crimson and white and purple harmonise.
(*See Blue, D 10; F 3, 6.*)

For other combinations with orange, see *Blue*.

The lighter hues, as canary, straw, lemon-colour, buff, &c. need not be mentioned in combination with other colours, as they are of inferior power, and can only be used as accessories in compositions which are too numerous to be specified.

- Red. (*See Blue, Yellow, Grey.*) Combinations with scarlet are preferable to those with red. (*See Scarlet.*)

A (3 colours).

1. Red and green and orange (or gold) harmonise, but wanting.
2. Red and green and yellow wanting and poor.
3. Red and black and orange (or gold) wanting.
4. Red and purple and yellow wanting.
5. Red and purple and orange wanting.
6. Red and black and white wanting. The bad effect produced by black on red, and red on black, is partly removed by the black and white contrasting and giving to each other their full power. The same may be said of black and scarlet and white; and by substituting black for blue in our union jack, the heavy effect of these three colours is very evident.
7. Red and black and green wanting. The black looks of a rusty hue, and disagreeable.
8. Red and black and pink wanting and disagreeable.
9. Red and white and pink wanting and poor and cold. The white is overpowered.
10. Red and black and yellow (or orange) wanting; requires blue.
11. Red and black and gold harmonise, but rather heavy, and wanting.
12. Red and brown and green wanting and disagreeable.
13. Red and buff and green wanting and disagreeable.
14. Red and green and russet discord. (*See Pl. III. fig. 6.*)

* In all combinations a larger proportion of blue than of any other colour is of course required, but in these the quantity of blue must be increased still more, in order to balance the scarlet, or the crimson, and the orange.

B (4 colours).

1. Red and black and white and gold harmonise, but wanting.
2. Red and black and white and purple (or lilac) harmonise, but wanting.
3. Red and black and yellow and brown wanting and gloomy.
4. Red and black and yellow (or gold) and purple wanting.
5. Red and green and yellow and purple wanting.
6. Red and green and yellow and white wanting and poor.
7. Red and green and yellow and black wanting.

C (5 colours).

1. Red and black and green and white and yellow wanting and disagreeable.
2. Red and green and white and yellow and buff wanting, poor, and disagreeable — as in the mosaics of San Bartolomeo nell' Isola del Tevere, Rome. (See No. 4, Mr. Digby Wyatt's Mosaics.)

D (6 colours).

1. Red and black and white and green and purple on gold ground wanting and poor.
2. Red and purple (or lilac) and scarlet and yellow and black and white wanting — not sufficient contrast.

Crimson. (See *Blue, Yellow, Orange, Black, White, Grey.*)

A (3 colours).

1. Crimson and purple and orange wanting. (See *Blue*, B 6 b ; C 9 a ; D 4, 9 ; E 8 ; F 3, 5, 6, 7.)
2. Crimson and yellow and brown wanting. (See *Blue*, D 6 ; E 6, 7 ; F 2, 6.)
3. Crimson and purple and green discord. (See *Blue*, F 3.)

B (4 colours).

1. Crimson and orange and black and white wanting. (See *Blue*, E 8 ; F 2, 3, 4, 6.)

Scarlet. (See *Blue, Red, Yellow, Black, White, Grey.*)

A (3 colours).

1. Scarlet and blue and orange harmonise, but wanting, scarlet and orange being too much for the blue. (See *Blue*, B 2 ; C 1, 2, 3, 5, 6, 7, 11, 21, 23 ; D 2, 3, 5, 6, 7, 8, 9 ; E 1, 2, 3, 5, 8 ; F 1, 5, 8, 9.)
- 1a. Scarlet and blue and yellow. (See *Blue.*)

2. Scarlet and green and yellow wanting. (See *Blue*, B 2; C 1, 3, 8, 12, 17, 22; D 1, 7, 8; E 1, 2, 7; F 1, 9.)
3. Scarlet and orange and black (*see below*, 9) wanting. (See *Blue*, C 5, 7, 23; D 2, 3, 5, 6, 7, 8, 9; E 2, 3, 5, 8; F 1, 5, 8, 9.)
4. Scarlet and orange and purple wanting. (See *Blue*, B 8 a; C 5, 11, 21; D 3, 7, 9; E 1, 3, 5, 8; F 1, 3, 8.)
5. Scarlet and yellow and purple wanting. (See *Blue*, B 8; C 2, 5, 21; D 3, 7, 9; E 1, 4, 8; F 1, 8.)
6. Scarlet and black and white wanting. It is not quite as bad as red and black and white (See *Red*, A 6.) (See *Blue*, B 4; C 7, 23; D 1, 2, 3, 5; E 2, 3, 4, 5, 7, 8; F 1, 8, 9.)
7. Scarlet and black and green wanting. (See *Red*, A 7; *Blue*, C 8; D 1, 2, 7; E 2, 3, 7; F 1, 9.)
8. Scarlet and black and pink wanting and disagreeable.
9. Scarlet and black and yellow wanting. (See *Blue*, B 3; C 5, 7, 8; D 1, 3, 5, 7, 9; E 2, 4, 7, 8; F 1, 8, 9.)
10. Scarlet and black and gold harmonise, but wanting. (See *Blue*, B 3; C 5, 7; D 1, 2, 3, 5, 7.)
11. Scarlet and brown and green wanting and disagreeable. (See *Blue*, E 7; F 9.)
12. Scarlet and buff and green wanting and disagreeable.

B (4 colours).

1. Scarlet and black and white and gold wanting. (See *Blue*, D 2, 3, 5, 6, 8; E 1, 8.)
2. Scarlet and black and white and purple wanting. (See *Blue*, D 3; and E 3, 4, 5, 8; F 1, 8.)
3. Scarlet and black and yellow and brown wanting. (See *Blue*, D 5, 6; E 4, 7; F 8, 9.)
4. Scarlet and black and yellow and purple wanting. (See *Blue*, C 5; D 3, 7, 9; E 4, 8; F 1, 8.)
5. Scarlet and black and orange and purple wanting. (See *Blue*, C 5; D 3, 7, 9; E 3, 5, 8; F 1, 8.)
6. Scarlet and green and yellow and purple wanting. (See *Blue*, D 7; E 1; F 1.)
7. Scarlet and green and yellow and white wanting and poor. (See *Blue*, C 1, 3; D 1, 8; E 1, 2, 7; F 1, 9.)
8. Scarlet and green and yellow and black wanting. (See *Blue*, C 8; D 1, 7, 8; E 2, 7; F 1, 9.)

C (5 colours).

1. Scarlet and black and green and white and yellow wanting and disagreeable.
2. Scarlet and black and white and purple and yellow wanting (better with orange for yellow).

3. Scarlet and black and white and purple and orange wanting ; they require blue.

D (6 colours).

1. Scarlet and black and white and green and purple and gold (or on gold ground) wanting, poor.
2. Scarlet and purple (or lilac) and crimson and yellow and black and white wanting.

Purple. (*See Blue, Yellow, Red, Scarlet, Crimson, Black, White, Grey.*)

A (3 colours).

1. Purple and scarlet and gold harmonise, a rich concord. (*See Blue, B 7; C 2, 5, 11; D 3, 7, 9.*)
2. Purple and scarlet and orange harmonise. (*See Blue, B 8a; C 2, 5, 11; D 3, 7, 9; E 1, 3, 5, 8; F 1, 8.*)
3. Purple and scarlet and white harmonise.
4. Purple and orange and crimson wanting ; they require blue.
5. Purple and orange and green wanting and discordant.
6. Purple and green and yellow wanting and discordant.
7. Purple and green and crimson discord. (*See Blue, F 2, 3.*)
8. Purple and green and brown discord. (*See Blue, F 9.*)
9. Purple and green and chocolate discord.

B (4 colours).

1. Purple and yellow (or orange) and black and green wanting and disagreeable.
2. Purple and yellow (or orange) and black and blue wanting ; require scarlet. (*See Blue, C 9a, 14; D 3, 4, 7, 9, 10; E 3, 4, 5, 8; F 1, 3, 4, 5, 6, 7, 8.*)
3. Purple and orange and blue and scarlet harmonise.

C (5 colours).

1. Purple and yellow and black and blue and scarlet harmonise well.
2. Purple and orange and black and white and blue harmonise, but wanting. (*See Blue, D 3, 4, 9; E 3, 8; F 1, 3, 6, 8.*)

D (6 colours).

Purple and orange and scarlet and blue and black and white harmonise.

E (7 colours).

Purple and orange and a little green and scarlet and blue and

black and white harmonise well. Other combinations with purple will be found under *Blue*.

Lilac. (See *Blue, Red, Scarlet, Black, Grey.*)

A (3 colours).

1. Lilac and scarlet and gold (or orange) harmonise.
2. Lilac and scarlet and black harmonise.
3. Lilac and scarlet and white harmonise.
4. Lilac and crimson and gold (or orange) harmonise.
5. Lilac and white and gold harmonise, but wanting. (See below, C 1 and D 1.)
6. Lilac and white and blue harmonise, but wanting. (See below, D 1.)

B (4 colours).

1. Lilac and scarlet and gold and white harmonise.
2. Lilac and scarlet and black and white harmonise.

C (5 colours).

1. Lilac and scarlet and gold (or orange) and black and white harmonise.
2. Lilac and scarlet and yellow and black and blue harmonise.

D (6 colours).

1. Lilac and scarlet and gold (or orange) and blue and black and white harmonise.

Green. (See *Blue, Yellow, Red, Black, Purple, White, Grey.*) Green, as I have already shown, should be in much smaller proportions than the other colours with which it is combined; and when I have introduced it with them in these lists, it is so to be understood. Its great quality is to light up those colours with which it is combined. (See *Blue*, B 2; C 1, 9, 11, 12; D 1, 2, 8; E, 2, 3; F (1), 2, 3, 9.)

Black. (See *Blue, Red, Scarlet, Lilac.*)

Black and white are not only the strongest contrast, but they set off each other when united with other colours more than any other two.

A (3 colours).

1. Black and white and scarlet harmonise well. (See *Red, White, and Black.*)

2. Black and white and crimson harmonise well.
3. Black and white and yellow wanting.
4. Black and white and orange wanting.
5. Black and white and lilac wanting and poor.
6. Black and white and green wanting and poor.
7. Black and white and pink wanting and poor.
8. Black and scarlet and purple wanting, rather hard and cold.
9. Black and scarlet and yellow wanting.
10. Black and red (or crimson or scarlet) and green wanting and discordant, and each taking away from the due effect of the other.
11. Black and crimson and yellow harmonise, but wanting.
12. Black and yellow and purple wanting.
13. Black and yellow and violet wanting.
14. Black and yellow and lilac wanting and poor and cold.
15. Black and yellow and green wanting and disagreeable. Yellow is here the only contrast to the two others, and another contrast is required.
16. Black and orange and purple wanting.
17. Black and orange and green wanting and disagreeable, though black and orange are concords, and green and orange also. The orange does not suffice for the two, and another colour is required to restore the balance; nor is the orange alone sufficient to compensate for the inharmonious combination of black with green.
18. Black and green and purple discord.
19. Black and green and lilac discord.

B (4 colours).

1. Black and white and grey and scarlet wanting.
2. Black and white and scarlet and yellow (or on a black ground) wanting.
3. Black and white and scarlet and blue harmonise, but rather cold.
4. Black and white and red and yellow (or even gold) wanting.
The white and yellow are both proper contrasts to black, and there is no contrast to the red.
5. Black and white and yellow and chocolate wanting.
6. Black and white and red and lilac wanting and poor.
7. Black and white and green and yellow wanting and poor.
8. Black and red and green and yellow (or rather gold) harmonise, but wanting.
9. Black and yellow and crimson and brown wanting.
10. Black and orange and green and lilac wanting and discordant.
11. Black and orange and blue and scarlet harmonise.

C (5 colours).

1. Black and white and scarlet and blue and yellow (or gold) harmonise.
2. Black and white and orange and blue and crimson harmonise.
3. Black and scarlet and blue and green and yellow (or gold, which is better) harmonise.
4. Black and orange and blue and white and scarlet harmonise.

D (6 colours).

1. Black and white and blue and scarlet and horsechestnut and yellow harmonise.
2. Black and white and orange and blue and yellow and crimson harmonise.
3. Black and white and blue and scarlet and yellow and green harmonise.
4. Black and white and yellow and blue and orange and green wanting.

E (7 colours).

1. Black and white and orange and crimson and dark bluish-grey and sage-green and a little blue wanting, dull, and heavy. They are very much the colours of some Mussulapatam carpets, where the effect is gloomy, with a harsh contrast of white, which is in too great a quantity for the other colours.
2. Black and white and yellow and green and scarlet and horsechestnut and blue harmonise.
3. Black and white and yellow and green and scarlet and blue and orange harmonise, if with a sufficient quantity of blue.

For other combinations with black see *Blue*.

White. (See *Blue, Red, Yellow, Black, Grey*.)

A (3 colours).

1. White and green and yellow wanting.
2. White and green and scarlet wanting. (See *Blue*, C 1, 3, 7; D 1, 2, 8; E 1, 2, 3, 7; F 1, 9.)
3. White and green and crimson wanting. (See *Blue*, D 8; E 7; F 2, 3.)
4. White and green and blue wanting.
5. White and green and chocolate-colour discordant.
6. White and green and purple wanting and discordant.
7. White and red and purple wanting.

8. White and yellow and chocolate wanting.
9. White and yellow and orange wanting by analogy.
10. White and yellow and purple wanting.
11. White and orange and blue wanting.
12. White and orange and purple wanting. Want scarlet and blue.
13. White and orange and black wanting. (See *Black*.)
14. White and orange-and crimson wanting.

B (4 colours).

1. White and black and orange and red (or scarlet) wanting — want blue.
2. White and green and yellow (or even gold) and scarlet wanting and poor.
3. White and yellow and green and pink and chocolate discord.
Other combinations will be found with white, under *Blue*.

Grey. (See *Black*.)

A (3 colours).

1. Grey and scarlet and blue harmonise.
2. Grey and red (or scarlet) and white wanting and poor.
3. Grey and crimson and gold wanting, and rather heavy.
4. Grey and scarlet and green wanting and disagreeable.
5. Grey and blue and white wanting and cold.
6. Grey and yellow and white wanting and poor.
7. Grey and green and white wanting and poor.
8. Grey and orange and white wanting and poor.
9. Grey and yellow and green wanting and poor, but not a discord.
10. Grey and pink and green discord.

B (4 colours).

1. Grey and yellow and green and white wanting and poor.
2. Grey and yellow and purple and white wanting.

C (5 colours).

1. Grey and yellow and lilac and white and crimson wanting.
2. Grey and light blue and white and light pink wanting and poor.

Brown. (See *Blue, Red, Crimson, Scarlet, Yellow, Black, Purple*.)

I have not thought it necessary to mention the combinations with drab, stone-, and fawn-colour, or with all the different hues and tones of the primaries and secondaries.

Some of the former, as well as grey, are better suited for grounds than for any marked position in coloured composition, as I have shown in Sect. IX. p. 107.

The *proper proportions* of the colours to each other are indispensable. I have already shown that to be all of the same quantity would be fatal to them; and some are required to be in larger, others in smaller, proportions. Thus, when a blue, red, and yellow are put together, their proportions should be very different; and the same quantity of yellow as of blue or red would have a disagreeable effect. But it is certainly difficult to determine the exact quantity of each colour.

XVIII. In the foregoing combinations of colours I have merely considered how they affect each other in *juxtaposition*, without noticing the proper *quantity* of each required for the harmony of a composition. It must, however, be borne in mind that, to give due effect to a coloured design, the *proper proportions* of the colours to each other are indispensable. I have already shown that, to be all of the same quantity, would be fatal to it; and some are required to be in larger, others in smaller proportions. Thus, when a blue, a red, and a yellow are put together, their proportions should be very different; and the same quantity of yellow as of blue or red would have a disagreeable effect. It is certainly difficult to determine the exact quantity of each colour without knowing the exact *number* of the primary, secondary, and other colours to be introduced into a composition, or without considering the several conditions to which it might be subject; but it may be laid down, as a general rule, that as the greatest quantity required in the three primaries is blue, then red, and then yellow, so too the proper ratio should be maintained in the combinations of the secondary*, as well as mixed, hues. In all cases where green is used, it

* See pp. 10, 22, 61, 76, 77, 94.

must be bright and of smaller proportions than the other colours. The equal intensity of the different tones is necessary in all cases, as already stated (p. 59, § 42); except where a lighter tone is required to brighten up a composition, or to set off some other colour (p. 101).

To mention all the proportions of colours for different compositions would require specimens of those various combinations, and these would have to be considered under many heads,—as for ornamental decoration in buildings (externally and internally), in furniture, &c., for daylight and for candle-light, and under all other conditions. Such minutiae could only be given in a work of great dimensions, and with the aid of numerous illustrations; and even then it would be difficult to define the exact proportions of each in all the various combinations in which they might possibly occur. But as the relative quantity and proper position of colours are of so much importance, I will not dismiss the subject without offering some general remarks on those two essential points.

As red and yellow have more analogy with each other than with blue, it is necessary to have more blue than either of those two in the same composition; and the proportions of 8 blue, 5 red, and 3 yellow, (*see above*, p. 94, Sect. III.) laid down by Mr. Field, may answer as a safe *guide* in the ordinary combinations of those three colours, the sum of the two last ($5 + 3$) being equal to the 8 of the blue. And following the same ratio in a compound colour, the 8 of blue will require an *orange* to have the same quantity, 8 being the sum of the two, red and yellow ($5 + 3$), which compose it. But this ratio can only be used as a *guide*, not as a *rule*; and Mr. Field's proportions could only be admitted in *certain* cases, for in many ornamental patterns equal quantities of blue and orange would have a very unsatisfactory effect. Besides, I must repeat that the compound colour, orange, is not to be considered *equivalent*

to red and yellow, even though the same quantity may sometimes be employed with blue; and red and yellow, as separate colours, would have a very different effect from orange when placed in juxtaposition with green. Again, the quantity of a colour when employed in combination with many others, and when employed with one only, to which it is a contrast, will be very different. Thus, when a blue and an orange are of the same quantity, the introduction of black will require the proportion of the orange to be increased; if a red is introduced, the blue should be in greater quantity than before; and similar changes must be made according to the number and nature of the colours added to a composition. Thus, when blue, scarlet, yellow, green, orange, black, white, and purple are combined, the quantities of the blue, red, and yellow must be greatly altered; and a different proportion is even required according to the relative *positions* of the colours.

No one rule can be laid down for all cases: and the proportions must necessarily depend on many accidental circumstances. They will also be influenced by the style of the object to be ornamented; as well as by its use and position; the effect it is to produce, whether by daylight or by candle-light, &c.; as before stated. Thus, red looks well with a large quantity of white when there are only these two colours, as I shall presently show; but this is not to be the *general* proportion of white to red in a composition. On the contrary, when a great number of colours are combined, the red, like the others, should far exceed the white in quantity, and a superabundance of white could then only be tolerated as a ground in particular cases. A pattern on a carpet composed of numerous colours would not look well if the white (not being the ground) exceeded the others in quantity; and I have already stated (Sect. VI. p. 99) that when some colours are combined in *very different* quantities the effect is seldom good. But there are exceptions to this rule, as when white is put

only with red; then it is that the white should predominate, and not the more powerful hue. For when a large quantity of red has a small proportion of white combined with it, the effect is heavy, and the red even loses its proper character; while a superabundance of the white with a small quantity of red is bright and agreeable. We at once perceive this in our white ensign bearing the red St. George's cross, and in the red flag bearing a white cross. (See Plate III. figs. 13, 14.) A border too of red to a white field is as agreeable as a white border to a red field is the contrary; and a red pattern on a white ground is preferable to a white pattern on a red one (figs. 13, 14, b, c). The same applies also, in some instances, to blue and white; and a blue cross on a white ground is more agreeable than a white cross on a blue field; as yellow on a white ground is more pleasing than white on a yellow one. But the greater quantity of white is less requisite in blue and white, as they are a more harmonious combination than red and white, and may be combined in equal quantities, which is not desirable in red and white. In like manner, a large expanse of drab, slate, light chocolate, salmon, grey, and other uniform hue, when it has a border or pattern round it, requires this last to be of a darker hue than the light and more abundant colour in the ground. This is in some degree owing to certain colours, which are well suited as grounds, requiring to be in greater quantity than those which are better adapted to combine with others in a composition. But it is not *always necessary* that the lighter colour should be the ground, with the darker one in a smaller quantity; for blue, and others, on a black ground, have a good effect, and orange looks well on a green, purple, crimson, and other ground. But then, though not darker, it is a more powerful colour; and it must be allowed that black on a blue ground, and a purple (or a crimson) on an orange ground, are preferable to blue on black, or orange on purple. White too is a better

ground than blue, red, or yellow. There is also a difference in the effect of colours on a ground of a darker or a lighter tone; and while light blue and light yellow on a ground of a deeper tone look better than dark blue or dark yellow on a light blue and light yellow ground, a dark red pattern has a rather better effect on a light red ground.

But the darker colours often bear a different relationship to their respective light grounds than to white.

These are a few of the instances in which the proportions of colours may vary very greatly. Sometimes, again, when an effect of warmth is required, a greater quantity of red may be admitted than is generally considered its due proportion; in some cases more blue is required than usual, to produce a cooler effect, to balance other colours, or for some other reason; and much will depend on the introduction or exclusion of other hues. Thus, when very little yellow is used, more red may be admitted, and where much yellow, and still more when much orange is introduced, the proportion of red to blue must be diminished. A great quantity of yellow compared to other colours is always to be avoided. Allowances are also to be made for the juxtaposition of other colours. I have just said that when a red ground has a small quantity of white upon it, the red looks *heavy*, as in the specimen of the flag before given; but when all the red is interlaced with a white pattern the red looks lighter, and a yellow so interlaced, gives to the red a scarlet hue. The reason is, that in the former case the red looks heavy by *contrast* with the lighter colour; in the latter it borrows from its companion, and to the eye is *combined* with it. (See Sects. VI. VII.) The same consideration should be extended to other colours under similar conditions. I have also shown that colours should be of the same tone or intensity in a composition, except in cases where a lighter tone is introduced in *addition* to the deeper one, in order to give it increased brilliancy or

lightness (*see* pp. 97, 99, 110); that allowance must be made for some colours diminishing each other's effect (pp. 10a, 11, 59, 62, 97, 101); that others increase the effect of a neighbour by contrast, as black and white, red and orange, and others; that some change the hues of those in juxtaposition with them, as black next to red, or to green (p. 102); and that some borrow from each other and form to the eye the compound colour they would have if mixed together, as red and blue, which look purple at some distance when no yellow or white intervenes between them to keep them distinct. (pp. 9, 61.)

XIX. I now offer illustrations of the mode of putting together certain colours; supposing them to be given in a confused mass, and requiring arrangement in harmony and proper proportion. We will suppose, then, that the following are before us:—black, blue, red or rather scarlet, green, orange, and purple, as single colours in equal quantities, placed together in very inharmonious order, as in Pl. II. fig. 1; and are to be made into a pattern. They may be arranged as in fig. 2. But it must be observed, that the quantity of each colour is not necessarily confined to that here given; and I have selected a design to show the effect of the colours *on each other*, rather than one well adapted for so varied a *combination*. (*See* Descr. of Plate II.) Nor would it suit this design to be viewed by candlelight, as the darkness of the black and blue would be fatal to it; and a greater quantity of green would then be required. (*See* Sect. IV. p. 97.)

Among many harmonious proportions may be mentioned 12 of blue, 4 scarlet, $3\frac{1}{2}$ crimson, 2 orange, 5 yellow, 4 green, 4 white, on a black (or grey) ground; and some proportions and arrangements of blue, scarlet, yellow, black, white, and other colours are given in Pl. IV. and V.

Specimens of harmonious combinations may also be referred to in various works, as in "Waring and Macquoid's

Architectural Art in Italy and Spain," Pl. VI., the two mosaic patterns, from St. Lorenzo, on the right and left of the plate; the lowest centre one from the Ara-cœli, Rome, and most of those in the plate; except the uppermost ones in the centre, from the Baptistry at Venice, which are discordant. There are also many good illustrations of coloured ornamentations in Grüner's admirable work, "The Fresco Decorations of Italian Churches and Palaces," among which may be particularly noticed the Villa Madama, Pl. VII. VIII. IX. X.; the Villa Santi, Pl. XX.; the Uffizi at Mantua, Pl. XXIV.; the Palazzo Martignengo, Pl. XXIX. (where even the difficulty of pink and green is so admirably overcome); the Chartreuse at Pavia, Pl. IV. V. VIII. IX. X.; and the Sta. Maria del Popolo at Rome, Pl. XIII.

I may also mention some plates in Mr. Digby Wyatt's interesting selection of the "Mosaics of the Middle Ages," as No. VIII. fig. 1 (though to judge of it properly, it is necessary to have with it the rest of the design); No. IX. fig. 3, from Palermo; No. X. fig. 5 (though rather cold); No. XI. fig. 2; No. XIII. A, figs. 1, 4; No. XVII.—the two uppermost figs. to the right and left (even though the red so greatly outbalances the blue) also the upper part of figs. 9, 11;—No. XVIII. figs. 7, 8, 9; No. XIX. especially fig. 4; and No. XX. figs. 1 to 8.

There are also many in Mr. Owen Jones's grand work of the Alhambra; and the ceilings and soffits of the Alhambra Court at Sydenham, those of the Greek Court, and of the Gallery of Antiquities at the British Museum, may be cited as satisfactory examples of coloured ornamentation; while the greens and reds in the pavements of the Roman churches (some of which are given in the first plates of Mr. Digby Wyatt's work), should be avoided as specimens of discordant colours; only to be excused from the nature of the materials employed, which limited the designers to the discordant union of red porphyry with green serpentine, giallo antico, and pavonazzo. (See p. 105.)

It is certainly of importance that some examples both of good and bad coloured ornaments should be pointed out; and as it is better to call attention to those which are known and accessible I shall add some of the most striking in that valuable work the "Grammar of Ornament," by Mr. Owen Jones.

Of the Egyptian, there are few which could be adopted with much advantage, though the colours are often harmonious, as in Pl. x., and those most generally combined on the Egyptian monuments are blue, red, green, yellow, and black. The Assyrian are rarely good in colour, and the fault of their combinations is too much repetition of square, round, or other forms, in the same pattern. Thus, though in Pl. XIII. figs. 5, 8, and 9, and even 12, are pleasing, they have the fault of being solely composed of squares and dots; those from 16 to 24 inclusive are poor in form and colour; and Nos. 22 and 23 consisting of green, black, yellow, and white, have a very disagreeable effect.

The Greek designs are most graceful in Pl. xv. to xxii.; except figs. 19, 20, 21, in Pl. xviii. and some few more, as in Pl. xxi.; and the colours of those of Pl. xxii. are harmonious and elegant, particularly figs. 14, 15, 16, 17, 18*, 22, 28, 29, 30, 31, 32, 33, and fully maintain the superiority of Greek taste; while the Pompeian designs in Pl. xxiv. show how it had declined during the Roman period, and how a fanciful and meretricious treatment had taken the place of purer colouring and form, confirming the objections made by Vitruvius to the masses of red, "the reeds for columns," and other fashions already gaining ground in his time. The most pleasing specimens of colour are those on a black ground in Pl. xxiv., particularly figs. 4, 5, 6, and 7. Fig. 12 is discordant; but it affords a curious illustration of my remark (p. 106) respecting the power of some grounds to

* In 18, 29, 31, 32, 33, the colours have been supplied by Mr. Owen Jones, and with great taste and judgment.

lessen defects in harmony; while it confirms another remark (p. 102) that reds take away from the power of black, as may be here seen by comparing the appearance of the ground of fig. 12 with that of 4, 7, 9. In the Byzantine ornaments, Pl. xxix. the border of fig. 23 is elegant in pattern and colour, as are parts of fig. 18 and some others. In Pl. xxx. figs. 1, 2, 4, 5, from Monreale, are remarkable as having a very Arab character, especially figs. 1 and 2. Figs. 7 to 11, and 14, 15, and 16, and 27 to 32, as well as 42, are also good in colour.

Many of the Arab designs are admirable. In Pl. xxxi. are the oldest and most simple; in Pl. xxxii. and xxxiii. they are richer, and of a rather later time. Fig. 13, Pl. xxxii., is a circle, very intricate and beautiful in pattern; and in Pl. xxxiv. both the designs and the colour are most harmonious and agreeable. The Turkish designs, Pl. xxxvi., show how Arab patterns were borrowed, misunderstood, and spoilt, being made large and coarse; and the beautiful Arab bosses (as in figs. 14, 15) were corrupted by having their interlaced work broken up; and were converted into a heavy, instead of a most graceful, ornament. The colours too, though well chosen, were in patches, resulting from the heavy arrangement of the details in the designs. This is very remarkable in figs. 5, 6, 8, 9. In Pl. xxxvii., in addition to the corruption of form, the colours are objectionable, having the superabundance of green prevalent at a debased era, and among a people of borrowed taste; instances of which may be seen in figs. 5 and 6, and even in 1 and 2.

The works of the Moors, as at the Alhambra, possess of course most beautiful and elaborate designs; and they abound in good specimens of rich and harmonious colours; but some of the designs are not quite so pure as those of an older Saracenic period, and the elaborate feather-work, and other signs of luxury in design, of this which we may call the florid Arab (the parent of that still existing at Tunis and other parts of

the Moorish territories), show that it is to the earlier Saracenic what the rich fretwork of the Tudor is to our Early English style. The Arab, however, did not undergo the same great change, either in *form* or *colour*, as our own; and in both of these elements the Alhambra designs are admirable.* Examples of this may be cited in Pl. XLII., figs. 1, 2, 3, and 4, which are beautiful both in colour and design. In fig. 6, the pattern is also excellent, though the colour is disagreeable from the superabundance of a dull chocolate-colour.† It is a very common design in wood-work at Cairo. In Pl. XLIII. the pattern of fig. 9, is admirable; but here the quantity of green disturbs the balance of the other colours, which too, being only green, light blue, orange, dark blue, and drab-white (or stone), are deficient in harmony, which requires other colours to complete it. The effect of the *two tones* of blue is very agreeable (*see* pp. 97, 99, 110). In fig. 11, there is the same objection to the colour, though the design is pleasing; and fig. 6 is discordant in colour, being dark and light blue, green, orange, plum, and stone-colour, though with a good pattern.

The Persian designs are not so happy in colour as might be expected from the carpets; though these are also changing. In Pl. XLIV., fig. 15 is elegant, and a good example of a design in which blue is the dominant hue; and in fig. 19 the colours are harmonious on the rich red ground; but there are few in this or the next plate which are not deficient in colour and form. In Pl. XLVI. figs. 7, 16, 19, 23, 24, 25, the colours are most harmonious. In Pl. XLVII. the general tone of the patterns is too green; and the same remarks apply to them as to those mentioned in pp. 155, 156. In Pl. XLVIII. the design in the upper figure,

* Those who wish for fuller illustrations of Alhambra taste will of course consult Mr. Owen Jones's well-known work on that building.

† This is an instance of the bad effect produced by a tertiary or a secondary colour outbalanced by the primaries. (*See* p. 94.)

forming the semicircle, is very admirable in colour; but the flower-work, in what may be called the spandril above, is not quite in keeping with the style of the ornamentation of the semicircular portion. Nor are the borders in the rest of this plate commendable either for colour or composition. In Pl. LIII. figs. 1, 3, and 8 are very elegant; and the quantity of green which may be introduced on a gold ground is well exemplified in the two last patterns (*see* above, p. 106). In Pl. LIV. fig. 2 is effective in colour. Fig. 7 is also pleasing; but the flowers are too isolated, like spots, on the blue ground.

In the Chinese there is little which could be adopted with advantage; but many "Celtic" designs are good in colour and pattern, as figs. 1, 5, 6, 7, and 26, 33, in Pl. LXIV.* In Pl. LXVII. figs. 23, 24, 25, 27, 28, 30, 31 are pleasing examples of mediæval patterns; as also in Pl. LXVIII. particularly fig. 20, and figs. 10 and 37; and, as specimens of gold and red alone, figs. 25, 26. Other good examples from illuminated works are given in some of the next plates; but those of the Renaissance period, as in Pl. LXXVIII. LXXIX. LXXX., are most objectionable in point of colour, and very inferior to most of those in Pl. LXXXV. of Elizabethan time.

The foregoing remarks will suffice to show the *general* character of those which in design and colour are most deserving of study and of imitation, and of some which are deficient in those merits; and they will serve as a guide in forming an opinion respecting others given in that useful work.

I may also mention other designs in the "Treasury of Ornamental Art," published by Messrs. Day, some of which afford very useful illustrations of the mode of decorating surfaces with colour, and of the true principles of forming patterns by means of conventional flowers. Many of these are from the fabrics of India and Persia; and they show the

* Of Anglo-Saxon and other designs in MSS. *see* Part II. § 84.

best method of employing green with other colours. This is done most successfully by placing the design on a ground of a rich, or at least of a decided colour. In Pl. XIII., "a Hindoo prayer-carpet," green is combined with the reds by means of the dominant gold ground, which also accords both with the green and the reds. For it is a mistake to suppose that the green and red are here the principal colours; and to deprive the design of the gold ground would at once destroy the whole composition. The introduction of different lines of red has a good effect.

In Pl. xv., "an Indian embroidered satin apron," the green and two reds, blue, white, yellow, and orange, on a black ground, have an agreeable effect: and here it is worthy of remark that the pattern composed of those colours looks well on the black ground, when it would have been far from pleasing without the black, or with a white or other light, ground. It is far more agreeable than Pl. xvi., where one of the blues is of an undecided slate hue in contact with red, and the general tone is harsh, while the black is not so suitable a ground for this as for the preceding pattern. In Pl. xvii.—"from the pattern-book of a Persian designer"—the designs offend by having too much green and red, and even purple with green; and they are imperfect in colour, whether taken singly, or in their general aspect when combined.

In Pl. xviii. the green and red of the flowers on a nankin ground have not a harmonious effect; and the same may be said of those in the upper part of Pl. xix. which are deficient in harmony and deviate from the principle of flatness; and better studies for the decoration of textile fabrics may be obtained from the lower part of this Pl. xix. In Pl. xxii. are common brocaded silks, such as are worn in the East, and though the combination of green, pink-red, and purple is disagreeable and discordant, they offer curious examples of the manner in which gold reconciles the eye to these colours,

which could not very successfully be combined without it, either in a pattern or a ground. (*See pp. 17, 106.*)

Pl. XXIII., "Italian cinque-cento embroidered silks," the green ground is not disagreeable, though the colours upon it might be better chosen, and have a more harmonious effect.

In Pl. XXIV. fig. A, "linen scarf of Morocco or Tunis work," is a very good combination of colour, and a pleasing design; but the ground is ill suited to it, and poor in colour.

In Pl. XXIX. "the modern Indian silk carpet" is far from agreeable; the red is here too dominant, ill according with an undecided green, and the whole has a heavy appearance, destitute of harmony and beauty.

In Pl. XXXI., "an Indian gold tissue scarf," the border is graceful, but rather thin and poor; in the centre the green and gold, and the red and gold, are rich; but from the gorgeous effect of these gold tissues their colours do not come under the same category as they would if combined without the gold ground; and they are therefore no guide for the ordinary arrangement of the colours they contain; nor in any case would the colours of a ground appear the same in relation to the others, if interlaced with them in the proportion they should have in a design.

The colours too in shawls and various tissues used for dresses are subject to other conditions from those employed for ornamentation, and admit of less decided contrasts; and however beautiful the manufacture and splendid the appearance of Indian shawls, they will not always serve as models for the arrangement of colour. Nor does the mode of wearing garments in India generally offer that combination of hues, or arrangement of drapery, which constitute good taste in costume; and the constant occurrence of orange, green, and other grounds little suited for dress, shows a want of judgment in their selection. Many are more creditable to the manufacturer than the wearer.

In Pl. XLVII. XLVIII., "Indian quiver and fan, powder-horn," &c., the tone of the red accords very badly with the blue ground and gold thread. The effect, therefore, of the quiver, where the red is less apparent, is far better than of the others. The addition of green in the pouch of Pl. XLVIII. gives it a discordant effect.

In Pl. XLIX., "a pattern of Indian lacquered work," the uppermost design has a pleasing character; and the second and third are simple and agreeable, though the light ground of the border in the second does not accord with its centre part.

In Pl. LV., "Italian hangings of the sixteenth century," the colour is disagreeable and discordant, and the design tasteless and ill conceived.

Pl. LVIII., "painted glass, modern German, copy from an ancient work," is rich in colour; but besides the faults inseparable from a mere painting on glass, the pattern on the ground is offensive, both from the size of the leaves and flowers and its general effect. The blue, yellow, and black are more harmonious than the red of the flowers dotted here and there on the same ground. Here the difference of black in contact with yellow, in the upper, and of black with green, in the lower, part of the dress of St. Catharine, shows (as I have already stated) how little black and green accord together.

In Pl. LX., "upholstery-work and wall-papers," fig. 1, the green, red, and yellow want other colours to enliven the design, and give it some degree of harmony; fig. 2 is wanting in arrangement of colour — the blue and white are too salient for the rest, and do not combine with them; the ground is injured by the pink and green placed upon it, which are themselves a discord; and fig. 3 has a monotonous sameness of hue.

The general effect of colour in the "jewelled bottle," Pl. LXII., is pleasing; but the "Indian spice-box," Pl. LXVIII.,

though the pattern in the lower part is graceful, is deficient in colour as it is in form in the upper part, and so much green and blue together are not desirable.

There are many other interesting illustrations in this work which are admirably executed, but which I need not mention as they do not offer illustrations of coloured ornaments suited to our purpose, and I have only selected those which are most applicable to the present subject.

XX. The next problem that I shall offer is, when two or more colours are given, which are discords, to add others to them, and so combine them as to form concords, and when united together in a composition to produce a harmonious effect. The case is parallel to having two notes which are discordant in music, and by adding others to them to form harmony. We will therefore suppose that purple and green are presented to us, which are a discord. These, by the addition of orange, blue, and red, or rather a scarlet, may be made into a harmonious combination; and some patterns are improved by a fillet of yellow placed between each, and by a small quantity of black to balance it. (*See also Sect. XVII. Blue C 8; E 1; and Black C 3.*)

Another disagreeable union of colours is black, red, and green; which by adding orange and blue, becomes a pleasing concord. Black, and green, and white are "*wanting*," but by adding blue and orange they harmonise. Black, and orange, and green, and lilac are wanting and disagreeable, but by adding blue and scarlet they also become harmonious. Of the necessary corrections for such discords the reader may obtain a notion by observing the colours used in the harmonious combinations given in the lists of Sects. XVI. and XVII.

XXI. An interesting series of experiments have been made by Mr. Babbage on the employment of coloured papers for printing, by which the effect of black ink on tinted papers

has been tested. He has also extended them to different coloured inks, each of two tones, dark and light, on papers of separate tints. The object was chiefly to ascertain the colours of inks and the tints of papers least fatiguing to the eye. For this purpose, firstly, twenty-nine or thirty volumes, each containing paper of a different colour, were printed in black ink; and, secondly, twenty or twenty-one volumes, each composed of one hundred and fifty sheets of paper of different colours, or tones of colour, were printed in an ink of a particular hue, which showed the effect of black, blue, and other inks on those several papers. Of the twenty-one volumes, two were in black ink; two in dark, and two in light, blue; two in purple; two in dark, and two in light, red; two in yellow; two in dark, and two in light, green; two in olive; and one in metallic ink. The subjects printed were, in all of them, tables of logarithms. Though it is not always easy to limit the transition from one tone to another, the sheets of paper may be said to be

Purple	.	.	.	.	.	.	.	14
Blue	.	.	.	.	.	.	.	13
Green	.	.	.	.	.	.	.	23
Red-pinks, &c.	.	.	.	.	.	.	.	18
Yellows, orange, buff, &c.	.	.	.	.	.	.	.	42
Greys and neutral tints	.	.	.	.	.	.	.	40
								<hr/>
								150
								<hr/>

From an examination of these, it appears that while black ink on white paper, being the greatest contrast, has the strongest effect, there are other coloured papers which fatigue the eye less than white; and this is still more perceptible by candlelight than in the daytime. First, as to distinctness:—

The order in which coloured papers with black ink are most suited for use, on the score of distinctness, appear to be—

- | | |
|---|---------------------------|
| 1. White paper with a cream-coloured hue. | 8. Light stone-colour. |
| 2. White paper with a bluish tinge. | 9. Light purplish grey. |
| 3. Light ochrous yellowish tinge. | 10. Light bluish grey. |
| 4. Light ochrous with warm or redder tinge. | 11. Bright yellow. |
| 5. Light ochrous with yellower tinge. | 12. Bright pea-green. |
| 6. Light greenish tinge. | 13. Bright yellow-orange. |
| 7. Light pink tinge. | 14. Bright blue. |
| | 15. Vermilion. |
| | 16. Purple. |
| | 17. Carmine-pink. |

White paper with black ink offers, of course, the greatest contrast, and the black is consequently seen more distinctly than on any other coloured paper; but it is more fatiguing to the sight than some others, especially in a strong light; and a light tone of ochrous yellow is far more comfortable to the eye for long-continued use.

Again, it is not always the hue that accords best with black in the harmonious combination of colours, which is the one to be chosen for the purposes of distinctness and comfort to the eye. Black on blue, for instance, and black on orange, which are very agreeable combinations of colour, are not sufficiently distinct; and the contrast of black with many other hues is far more eligible for the type of a printed book, at the same time that it is more agreeable to the eye.

It is not enough to know on what coloured paper black ink is most distinct; the selection of that one which fatigues the eye least is a most important question, especially by candle-light. It will then be found that with black ink papers such as Nos. 3 and 4 are better for long use than No. 1, where the contrast is so much greater and harsher; and even the green of No. 12 would be more comfortable to the sight than Nos. 11, 13, 14, 15, 16, and 17; but the subdued greenish

hue of No. 6 would be better than No. 12. The most fatiguing is a red ground, as Nos. 15 and 17; and red, which tries the eye in the day, is far more exhausting by candlelight. A glazed paper should also be avoided.

It is found that (the letters being in black ink) ochrous yellow paper is the best for the eyes by candlelight; though not so perhaps in full daylight. When too yellow it is trying to the eye. Fawn-colour is good in a strong light, but not bright enough in a dull light. Orange-yellow is very distinct, but too bright for the eye. Lemon-colour is also distinct from contrast, but fatiguing to the sight. Stone-colour, of a yellowish tinge, is clear and comfortable to the eye. Light green stone-colour is the most agreeable of the green tints. Light grass and pea-green are distinct: other greens not so distinct. Light lilac and lavender are also comfortable to the eye, provided they have not too much blue. Light pink is distinct, but not comfortable to the eye, and better for a dull than a bright light. Red-orange is a contrast which makes the black distinct, but is not comfortable to the eye. Salmon-colour is distinct, but trying to the eye. Light ochrous-colour is better for the eye (as No. 4 of last page). The black of the ink even changes its appearance on certain coloured papers; as on a red and a green ground; and on a yellow-green (or on a pistachio-coloured) paper it has a reddish-brown tinge; so too a red ink on green paper looks russet.

In all cases where the eye is weak, or when it is much employed by night, the light of lamps or candles should be tempered by covering them with a blue glass shade, in order to obviate the red and yellow rays, and to bring the light as near as possible to that of day; there should also be a sufficient quantity of light to see distinctly, and nothing is more trying to the eye than reading by a dull or insufficient light. But as, in order to overcome the red or yellow rays of a lamp, the blue glass must necessarily have a considerable

depth of tone, the loss of light is proportionably great, and such a blue shade takes away one quarter of the light. Light, therefore, should be sought which has as little as possible of the red or yellow rays; and the whiter gas, requiring a blue shade of lighter tone, gives a greater quantity of light, without the necessity of increasing its strength in order to overcome the effect of a deeper blue glass.

With regard to other coloured inks on various papers, the only one of much value is blue; owing to their being deficient in contrast; except when red is employed together with black ink, to distinguish words on white paper.

These are a summary of the observations respecting the use of coloured papers, which I have been enabled to collect through the kindness of Mr. Babbage, and by means of the interesting and extensive investigations he has made; and we may hope that they will be given to the public in their full extent, with all the necessary illustrations, by their talented author.

XXII. I have been careful to point out more than once certain errors to be avoided in judging of colours, and to show what is necessary for the study of their harmonious combinations; and as these cannot be too frequently insisted upon, I shall repeat some of the most important of them under the following heads:—

1. The eye is the proper judge of colour, and the perception of colour is a natural gift. (pp. 55, 64.)

2. We should abstain from theories till the subject is understood. (pp. 3, 6, 7, 58, 92.)

3. Flowers, and other ornaments, should be conventional, not *direct* copies of natural objects; nor should you tread on these in carpets, nor walk on the tracery of architecture. (pp. 18, 46, and see Part II. §§ 27, 32.)

4. The three primary colours, blue, red, and yellow, which are a concord, should predominate in ornamentation; yet scarlet (which is really a compound colour) generally looks

better than red, even with blue and yellow, and always so when with blue alone, with which it does not assume the same purple hue as does a red (or a crimson) in juxtaposition with blue, owing to the yellow in the scarlet. (p. 93.)

5. A fillet of yellow (or some other colour when there are many) should be placed between or near to red and blue, to obviate their purple effect. (pp. 9, 42, 61, 94.)

6. The two accidental colours do not necessarily harmonise with each other. (pp. 73, 92, 99.)

7. Harmony is not limited to similarity of colours; but there is harmony by contrast also; and contrasts are of different kinds. (pp. 60, 75, 76, 77, 98, 112.)

8. The effect of the simultaneous contrast of colours is to be considered. (pp. 99, 102.)

9. The intensity of tones of colours should be equal in the same composition; but a dark and light hue may be used together with good effect. (pp. 75, 99, 145.)

10. The quantity of the colours is to be balanced; and some may be in a smaller quantity when combined with certain others. (pp. 99, 105, and Sects. XVIII. XIX.)

11. The proper relative position of colours is to be consulted. (p. 111.)

12. Some colours by candlelight and by daylight have a different effect, and allowance is to be made for this. (pp. 97, 101, 104, 111.)

13. Colours that accord well, both in their hues, and in certain quantities, do not always suit every kind of ornament; and some combinations which suit a carpet, or a wall, do not answer well for a dress. (pp. 78, 106, 110.)

14. In some compositions, and particularly on the painted walls of a church, or other building, the coloured patterns should not cover the whole space. The eye requires some repose, and is fatigued by any object overloaded with ornament. (p. 109, Sect. X.)

15. A great quantity of the same colour in one part, and little or none of it in another, are fatal to the general effect, and disturb the balance of colours. (pp. 99, 147.)

16. Large masses of one single colour should not catch the eye; it should receive, at the same moment, the combination of several colours. The patterns should not be too large. Spots and monotonous lines should also be avoided. It is, however, allowable to have a mass, or ground, of one colour in the centre, and a border of several colours round it. (p. 54, § 37 p. 40; and Sect. XVIII.)

17. Bright green may be well introduced to lighten up a composition; but not in masses, except as a ground; and when used in great quantity it is a sign of an artificial and debased taste. In those compositions, however, which are to be seen mostly by candlelight a greater proportion of green may be used. (pp. 16, 17, 105, 106, 125, and in Sect. XIX.) Green as a *ground* sometimes suits other colours, which would not accord with it if interlaced together in a pattern; but it must be a *glaucous* green. (Of the best hue for this purpose, see p. 105, note.)

18. Greys, and some other neutral (or intermediate) colours, answer well as a ground and soften the abruptness of contrasts (as of black and white), when required. (p. 107.)

19. Two of the primaries may harmonise better with each other than another two of them; and blue and red, or blue and yellow, or red and yellow, accord in *different ratios*. (p. 61.) So too there may be a *greater* or *less* degree of relationship between any two of the secondaries; and while orange and green, or orange and purple, are both agreeable in juxtaposition, purple and green are discords. The same *difference* subsists also between the primaries and their accidental (secondary) colours; blue and orange harmonising most agreeably by contrast, which cannot certainly be said of red and blue-green. (See above, No. 6, and p. 74.)

PART II.

ON THE NECESSITY OF A DIFFUSION OF TASTE
AMONG ALL CLASSES.

§ 1. [THE creditable efforts now making in England to disseminate taste through the country, and to encourage the various branches of ornamental art, give a more than usual interest to the subject, and invite every inquiry that may bear upon it.

The practical views of the age have acknowledged the necessity of affording to all portions of the community the same means of educating the eye; and few will now deny the propriety of uniting the decorative with the useful, in objects of every-day requirement. For what hope can there be of general improvement in the "arts of production," if those who create them are ignorant of the simplest notions of taste, and cannot even comprehend the beauty of a design if presented to them? It is not by the education of the higher classes *alone*, nor by the patronage of the great, that taste is to be spread through a country: they may *contribute* as far as lies in their power towards this object, and the efforts now making by some men of rank and wealth are both creditable and useful; but for the community to have a feeling for art of any kind, the study must be *general*, and the minds of those who make, as well as of those who require, works of taste, must be imbued with a true appreciation of the beautiful. I do not, however, by this remark, wish to imply that men of rank and wealth, in England or any country, are distin-

guished above all the rest of the community by correct taste : the few who possess it are the exception, and the exhibition of objects of their choice too frequently demonstrates an admiration for meretricious ornament and faulty design.] *

In no country is the cultivation of taste more necessary than in England. The advantages of climate, the richness of colour, and the beauty of nature, as well as the facility of studying her works, in Greece, Italy, and some other countries of the south, have been far greater than with us. Living as we do so much more in-doors, and in a gloomy climate, our ideas of beauty are less expanded by the contemplation of nature under her best aspect : it is therefore of the greatest importance that the objects we have before us in our houses, to which we are so much indebted for our early impressions, should be beautiful and in good taste ; in order that the eye may be educated by the habit of seeing what is good. At present the earliest directions given to taste are quite the other way ; and whether you enter the cottage, or the mansion of the rich, you find an abundance of frightful ornaments : not from any deficiency of the wish to possess what is good, but from the inability to appreciate or select it.

2. [One great impediment to the cultivation of taste is the notion that beautiful designs are only to be found in expensive objects, and are therefore out of reach of all but the wealthy ; and, indeed, when there are few capable of making good designs, the conclusion is not drawn without some show of reason, rendering it all the more necessary to remedy this impediment by a more extended art-education. For, as long as taste is confined to a few individuals, and is not introduced into the ordinary ornaments and utensils of common life, it will continue to be almost an exotic plant, and a mere luxury. "Arts of production" can only be beautiful in proportion

* The portions within brackets were written in 1854, and published in the "Builder" of that year.

as they depend upon “arts of design;” and as beauty of form and proportion, exquisite detail, and high finish, were sought for by the Greeks in their vases, lamps, and other common utensils, so may our ordinary objects, whether intended solely for ornament or for every-day use, be made beautiful as easily as they are now generally hideous and misshapen. This depends on the mind that devises them; and to despair of giving to the commonest object an elegant design is to acknowledge incapacity and want of taste. The same maxims laid down by Vitruvius for architecture apply to them:—First, That they should answer the purpose for which they are intended; Second, That they should be durable, or of solid workmanship; and Third, That they should possess beauty—and every one without these conditions must be faulty and imperfect. But beauty is not to be obtained by capricious ornament, such as overloads so many of our modern productions; and unless the maker knows *why* the peculiar form, and all the ornamental accessories, are given to his work, any splendour of decoration, which may merely delight the ignorant, will only be looked upon by men of good judgment with the greatest dissatisfaction.

Taste, to be of use, must pervade all classes; and by this means, graceful and beautiful objects for every-day use will come into general demand, and be generally made. They will also be obtained at moderate prices, and thus be placed within reach of all, instead of being confined to the wealthy few who happen to be possessed of cultivated taste. For it is not by making what is elegant dear to the purchaser that it will be generally appreciated: this is an impediment, not an encouragement to it; and until good things are within the reach of all, and recognised by the majority, it is vain to hope for excellence in any country.]

It is one of the greatest errors to suppose that wealth alone can obtain objects of good taste; it can certainly command

the costly; but the *selection* of the beautiful depends on the judgment; and good proportion, form, and other conditions, may be met with in articles of use or ornament without their being necessarily expensive. This should be borne in mind by all who despair of obtaining them because their means are limited. We have only to look at the bad taste displayed in the over-furnished rooms of many wealthy individuals to be convinced of the fact, that good taste does not necessarily belong to the richest members of the community, or that the possession of tasteful designs is confined to people of ample means. [Many a simple and cheap object may be made in good taste without any additional cost; and the humblest individuals may display an innate perception of the beautiful in the ordinary ornaments of a cottage, or in the coarsest materials.] The commonest pottery, worth a few pence, may have far more to recommend it than a splendid Sèvres vase which costs some hundreds of pounds; and the one may possess real beauty, while the value of the other may consist only in the difficulty of manufacturing it. One may be a work of taste, the other of skill, or caprice, and be, in a fact, a mere curiosity.

It is not necessary that the purchaser or the maker should have the means of expending large sums to obtain, or to produce, any objects of taste; but each must possess a feeling for the beautiful; and it is of special importance to a manufacturing country like England that good things should be made, which will claim, both abroad and at home, the admiration of those who are capable of appreciating them. Nothing encourages the sale of manufactures so much as their excellence in point of taste (at least when the public are alive to their merits), and in the words of the far-seeing Necker, "*le goût est le plus adroit de tous les commerces.*" We are often surprised at the want of taste shown by the English shopkeepers in the arrangement of objects for sale; and this is particularly striking to any one who has just seen the success-

ful manner in which the Parisians manage to display their goods, especially by means of colour. There can be no doubt that the effect thus produced offers a wonderful allurements to purchasers, and greatly promotes the sale of articles which might have passed unnoticed without this judicious species of recommendation; for when objects look well together, each acquires an increase of beauty, and offers an additional attraction; and as arrangement is so great an element of success, it is important that a manufacturing country like England should possess the knowledge on which it depends.

“The ancient prosperity of the Samians,” as Mr. Wornum observes, “is a remarkable instance of the great national benefit to be derived from the judicious application of art to manufactures. . . . The small island of Samos, by its potteries alone, carried on an important trade with all the cities of the Greek and Roman empires, and thus was enabled to compete, in splendour and luxury, with the greatest states of the ancient world. . . . The workers in metal and the painters were equal in renown to the sculptors and architects of Samos. All this magnificence was but the fruit of its industrial ingenuity, its skilful ship-building, its enterprising commerce, its matchless potteries. The skill of its potters made the very soil they trod upon more precious than gold. This earthenware of Samos carried its commerce over every sea, to every port, until its merchants became princes; and this small island-state was conspicuous among the richest nations of the world.” But those who admired, and those who bought, that pottery were fully alive to its beauties; and though it served for common purposes, it was esteemed for its æsthetic merits.

There is no reason why the humblest household object should not be beautiful in proportion, form, and colour. Owing, however, to the deficiency of taste among those in England who make articles of common use, and still more among those who purchase and select them, it is rare to find any that are not

deficient in one or more of those requisites; [and there is little to elevate the mind or correct the eye of the general mass. It is, therefore, absolutely necessary that *all* should have the mind and eye directed to the perception of what is good; and, unless taste pervades all classes, so that both the maker and purchaser may possess that knowledge, the production of beautiful objects will depend on accident or caprice. The one may manufacture them, but the other will not desire what he does not appreciate; and it will be equally vain for the latter to possess a taste he cannot gratify. Besides, as Mr. Laing observes, "what employs the industry and ingenuity of the many is of more civilising influence on society than what employs the genius of the few;" and as "much wealth locked up in gold and silver ornaments is a sign of a low progressive social condition," so good taste may be possessed by a few, while the rest of the community continues to be unconscious of its beneficent influence. In that case it is a mere luxury; and it generally happens that, in a condition of society where it is thus limited, the search for objects of art is rather a caprice than a real feeling. Luxury is the enemy of refinement, the parent of *rococo* and of spendid monstrosities. For taste to last, and become general, its rise and progress must be simple and gradual; it must be sown and reared, and will never flourish by mere transplanting.] A few may possess it; but the majority will remain deficient both in the power of estimating and creating good works; and though we may look with admiration on the talent displayed by a Minton, an Elkington, a Blashfield, a Battam, and others, in copying good models and inventing good designs, we shall find that the mass of those who produce ornamental works fail from ignorance of the true elements required to ensure success.

3. [Thus it often happens, when an approach to good taste has been shown in the design of some common object, that it

turns out to be the result of pure accident—a copy, perhaps, of some model selected at random, which, as the maker (on being questioned) admits, had merely the recommendation of novelty, being hitherto unknown in his particular trade. Besides this, the copyist frequently spoils the original by some capricious change of his own, introduced without any reason, totally at variance with its general *motive*, and with no other plea than a crude notion “of varying” (or if he has the vanity to suppose it, “of improving”) what he should have left unaltered. Hence, if you praise one of these accidental works, or suggest an improvement in another, or censure a bad alteration already introduced, the unconscious maker is at a loss to understand the reason of the praise, the necessity of any change, or the merits of the censure; and then, in order not to appear ignorant in the matter, having invited your admiration to some other object of the most unmitigated barbarism, he at once proclaims how pure an accident it was that led him to copy at all from a good work. You turn to another, and make a remark about its deficiency in a certain part, which has probably been one of his own “*improvements*,” when he thinks at once to overwhelm your objection by, “The original, sir, from which that is copied, was found at Pompeii,” and remains fully persuaded that you know nothing about the matter. For to be found at Pompeii is his criterion of excellence; and his incapacity for judging prevents its occurring to him that, even if exactly the counterpart of a Pompeian model, it may still be faulty, even without the several *improvements* the work has been doomed to undergo during its transmutation from the ancient model to the English copy. Utterly ignorant *why* one thing is good, another bad, or how small an alteration may spoil the whole effect of the best work, these people still have preconceived notions; and it is curious to listen to the crude and fallacious dogmas they may have laid down, or borrowed from

some worthless authority, about the principles of beauty and form.

Among the many instances of this I will mention one, which I scarcely expected in a man engaged for so many years in the manufacture of works of ornamental art. It was while looking over his vases that the form of one of them came under discussion, and led him to expound his views on beauty.

A ponderous folio filled with well-executed drawings of every kind of vase, from the best and worst designs, lay upon his table; showing that neither time nor trouble had been spared in making the collection; but when he pointed out the bad as models of perfection, it was evident that neither the possession of accurate copies of so many different works, nor the habit of selecting from them, had given a proper direction to his taste. He had no perception of *beauty*; but he had his own view of a *theory*, and everything was to bow to his crude ideas about "flowing lines." A Greek cylix was, therefore, pronounced by this criterion to be the *ne plus ultra* of bad form, because "the bowl being so nearly at a right angle with the foot, the lines could not flow." His test of excellence was

(WOODCUT 1.)



Fig. 1.



Fig. 2.

illustrated in the outlines of cups of this form, and the abrupt contrast of lines in the Medici and similar vases was severely censured.

A visit to another artist in this line led to a different result. The fault was not in the maker, but in the public. He had copied, with the judgment of a man of taste, the most beautiful Greek vases, and had introduced upon them the graceful and classical designs of our ill-appreciated Flax-

man; and any one might have expected that the growing desire for objects of good form would have ensured their sale and encouraged his efforts; but going one day to give him an order for another tazza, I found his shop crowded with the most tawdry, ill-proportioned vases of a different manufacture, each looking as if, while still in a plastic state, it had been pulled up by the neck to increase its length. "What," I asked, "has made you give up good things for bad ones? Have you abandoned all that was in proper taste for a new caprice, or did you only make good things by chance?" "It is not *that*," he said; "these things sell, and I must live; I can find plenty of purchasers for them, and few for the others." What could be said? It was the purchaser here who wanted taste: and as long as the public is deficient in it, vainly indeed may the manufacturer possess it. "But why not," I asked, "have them of good proportion, why so elongated beyond all reason?" "This," he said, "it is out of my power to prevent. I buy them; they are made by others, and I must take them as they are; for they are sold *by the height at so much an inch!* and to require the height to be diminished in accordance with the breadth would only be considered a *ruse* to decrease the price." And yet these profess to be objects of ornament and taste!

"Why," I remarked to an Italian, "do you not make copies of *such* and *such* beautiful objects so justly admired in Italy? you would find many to purchase them, and you would do good by causing them to be generally known." "I have already made several of them, but they did not sell, and now I confine myself to those that do;" and then showing me some of the most commonplace ornaments, he said, "These I can always sell, and I have a family to support." Among them were dogs, and flowers, Canova's three lanky Graces, and elongated vases equally deficient in proportion, form, and decoration.

And now having mentioned an Italian, I cannot abstain from acknowledging the debt we owe to the poor "image men" who wander through our streets; for I have no hesitation in saying that they have done more to improve the *general* taste, to place copies of known sculpture within the reach of all, and to familiarise the eye of the English public with what is good, than any school (which a few only can attend); than any gallery (which the working-classes seldom visit); or any institution in the country; and when we recollect that English art paraded (without shame) through the streets was confined to cats with moving heads, green parrots, wooden lambs covered with cotton wool, or (if the figure of a man was attempted) a coarse boor holding an equally vulgar pot of beer; we may feel grateful for the change so unostentatiously brought about by these humble foreigners.

4. The taste indeed of many English who pretend to judge of art, too often leans towards the mere matter-of-fact representation, both in statuary and in painting; and while the ancient Greek or the modern Italian would display his first sign of genius for art by selecting an object of graceful form, or by giving to the figure he moulded an exalted ideal character, English talent would manifest itself and obtain applause by the mere imitation of humble life in the figure of an ordinary peasant, or in some graceless scene of common life.

It is not surprising that the generality of articles of use or ornament should be deficient in beauty, when so few of the makers, or the purchasers, have any real appreciation of proportion, form, beauty of outline, colour, adaptability of materials, and of the many conditions essential for excellence in design; and are destitute of the means of obtaining a knowledge of the subject, of guiding and improving their judgment, or of discriminating between good and bad? It were a miracle if men without the opportunity of understanding an art should succeed in practising, or in

encouraging it; and how, unless shown what to avoid and what to admire, can they form their taste?

5. And here I feel a pleasure in paying a just tribute to the good judgment which adopted this mode of proceeding at Marlborough House. For it is by the *negative* rather than by the *positive* process that instruction is conveyed to the untutored mind in the most intelligible form; and when any one has to choose one out of twenty objects, it is far easier to make the selection if he begins by rejecting those he will *not* have, than by at once attempting to fix on the one he prefers. Let him rather say, "This I will *not* have, nor this, nor this," until he has reduced the number to two; and his final choice is even then more easily made by rejecting one of them, than by trying to decide on the best. But while I fully approve of the mode of instruction by showing what is *bad*, and *why* it is so, I must admit that a "chamber of horrors" should not be confined to one, but should include (under different gradations of censure) *every* room, except a very small *sanctuary*, privileged to contain a few really good specimens; and however gratefully I would acknowledge the condescension, or the public spirit, of any great person who sends objects of art to an exhibition, I would only commend and draw attention to such as are *worthy* of being imitated, and exclude those that are deficient in taste from the recommendation that they are "sent for study;" and when so little good exists, and where few can be expected to possess perfect specimens, or even perfect taste, no sensible person could be offended at such an exclusion of the objects of art or curiosity he might have sent to that exhibition.]

No better mode of instruction could be devised than that of reviewing some large collection of works of taste, such as our Great Exhibition in 1851, and others that have followed it; so as to show at once what is bad, to select for approbation whatever good points are to be found in any object, or to ex-

plain how in its defective parts such improvements might be substituted as would make it perfect. There are always many bad designs, and the reason should be stated why they are so; there are others that have perhaps one good feature, and it should be pointed out; there are others which are almost good, but yet, through some imperfection, are prevented from being so; and it should be explained how such and such a change would make the required improvement. It is this very power of perceiving the beautiful, however small in quantity, which (as I shall have occasion to show) enabled the Greeks to select from, and improve on, the works of others less talented than themselves, and we need not be above the attempt to follow so good an example. May we only succeed in it! Such lessons would convey more practical instruction than the mere examination of the most perfect design. It is easier to teach by showing why something is not good, and how it might be made so: and this negative process will afford to beginners the best of lessons, care being taken at the same time that the most perfect and beautiful objects be constantly recommended to their attention. For while *instruction* may be conveyed by teaching them what to avoid, the general *taste* should be guided by the contemplation of what is good; one appealing to the reasoning faculty, the other educating through the eye.

6. [It is of the highest importance for creating and improving the taste of the public that good designs should be constantly before them. Even those who are gifted naturally with a certain amount of it are liable to have it vitiated by frequently seeing bad models; and a more cultivated taste is occasionally warped and led insensibly towards the extravagant if, debarred from the contemplation of the beautiful, it has faulty designs constantly before it. Many, again, allow themselves to be deceived by the fiat of men whose names are thought to give weight to their opinion; and it is thus that

some who might have arrived at a just appreciation of colour have had their judgment warped by reading the plausible theories of people totally ignorant of the subject, but not the less positive in their opinions. Nothing, indeed, is more likely to mislead than a theory propounded before the subject itself is understood: it is like the attempt *to write a grammar before the language is known*;] for practice, as Dr. Whewell observes, has generally gone before theory, and results have been arrived at before the laws on which they depend have been defined or understood.

But together with the frequent contemplation of beautiful objects those rules and corollaries which have been derived from observation and study should be made an essential part of the instruction given to artisans and all engaged in various branches of taste; and it is hopeless to expect them to understand or create perfect designs without the necessary training. When we see how deficient the well-educated classes are without appreciation of them, and judging from the selections these make, as well as from the fact that ornamental works when copied from good and approved models are rarely sold, we can only come to the conclusion that, deficient as our artisans may be in taste, the paucity of good designs is more the fault of the purchasers than of the makers. I have known careful copies of the Medici, and other Greek vases, objected to *because* they were ornamented with *figures* — *flowers*, it was said, would have been preferable; and, at the sacrifice of time, labour, and taste, the maker was obliged to substitute those paltry ornaments to suit the prejudices of the purchasers, who had not even the same excuse for that preference as the iconoclastic Moslems.

7. [If those who have some kind of perception of the beautiful are misled, how hopeless it must be for the great majority, who are destitute of this advantage, to arrive at any knowledge of it without proper direction. Indeed, cultivated

as was the graceful mind of the Greeks, we even find their taste sometimes failed to be correct;] and some of their monuments are open to objections, from their falling short of that excellence and beauty for which they are generally so remarkable. It is, however, with great deference that I speak of the works of the Greeks, as I would be cautious in criticising the productions of any great master of later times; and those who have remarked (and with truth) that the fighting gladiator could not *stand* to fight in that position are hasty in supposing this to be an oversight of the sculptor, he being in the act of changing his position to strike a blow. There are, however, certain cases where, as may reasonably be expected, some Greek workmen have been less worthy "of Corinth" than their fellows, and [have failed in the accessories of their vases, especially in the handles and the foot. Many too of the later vases of

(2.)



Fig. 1.

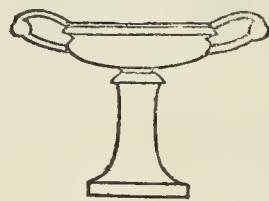


Fig. 2.

Apulia are wanting both in form and proportion, while they have the fault of elongated shape so frequently found in those of modern Europe.] (Woodcut 3, *fig. 1.*) Some are also disfigured by adhering too closely to an original type, as is evident in the vase derived from the painted end of the old pithos and amphora, supported by the circular stone into which they fitted (*fig. 3*); which gives an abruptness to that part no longer excusable when an ornamental purpose was sought for in addition to a useful one (*fig. 2*). [And though the drawing of the figures on the (so-called) Apulian vases is remarkable for freedom of execution, they are inferior in composition to those of the age of Alexander, and still more to

those of the best Greek period, from 450 to 350 B.C.; and the introduction of numerous figures on the same field, together

(3.)



Fig. 1.



Fig. 2.



Fig. 3.

with a greater luxury of ornament, proclaims a deficiency of real taste and the declining condition of art.

It is this want of proportion which spoils the generality of the richly-coloured glass vases of Bohemia, showing that the skill of the makers in the manufacture of the material far exceeds their taste and correctness of eye. And if really intentional, and not an accidental caprice, it is probably owing to some preconceived notion about height giving lightness and grace. And this often misleads persons incapable of *feeling* the beauty of symmetry.] Grace and beauty of form in vases have not certainly been the *forte* of the Germans at any time; and their celebrated stoneware* of the Renaissance period has a heaviness and want of grace, though frequently of great pretensions, which our modern imitators of mediæval works would do well to avoid. Nor can I abstain from calling attention to the glaring want of proportion between the body and stem of a noted vase at Berlin (a copy of which is exhibited in the nave of the Sydenham Palace, and marked 169), which I should be sorry to see imitated in this country.

8. It is true that the larger Italo-Greek vases† of Southern

* See Labarte, pp. 312, 313, and German, Flemish, and Dutch ware in Marryatt, pp. 124—129, 265.

† Sometimes mis-called Apulian.

Italy are often remarkable for grandeur and richness of design, as well as for great variety in the figures, which are drawn by a masterly hand; but they convey an impression of being the offspring of a taste delighting in the luxury of ornament rather than of one imbued with a pure feeling for art. There is a voluptuousness in them, with an approach almost to meretricious ornament; and the designs are less pure, as the forms and proportions of the vases themselves (grand as they frequently are) are less perfect than the best of Greco-Etruscan time. This may be partly explained by the former being of a later period, when taste had begun to be corrupted, and when the Greeks had fallen into the error (common to all declining taste) of introducing elongated forms. Thus, though the beautiful coins of the time of Hicetas and the second Hieron, about 280 B.C., have obtained so much admiration, we may trace in them the evidence of mannerism in the treatment of the human figure, the horses, and various accessories, showing a departure from the purity of the best Greek works; and it is interesting to compare the laboured finish of the hair and folds of drapery with their broader treatment in the coins of 450 and 420 B.C., or with the semi-Archaic style retained in those of Demarete, the wife of Gelon, B.C. 478.

I will not pretend to say whether the Greeks of Sicily and Magna Græcia adopted some degree of mannerism before it appeared in Greece, through a Sicilian or Italian influence; but there appears to be some reason for this conclusion; and the most beautiful coins of Sicily are less pure in design than those of Elis, Clazomene, the Locri-Opuntii, Chalcidice, and some others of the same date in Greece, about 450-380 B.C.; nor do the coins of Metapontum, Thurii, Heraclea, beautiful as they are, display the same grandeur and breadth of drawing as those of Greece just mentioned.

The fact of the Greek vases of Southern Italy being remarkable for mannerism and elongated forms is certainly in

favour of the supposition that Italian influence had its effect on the taste of the Greeks settled there; while the absence of these defects in the Greek vases of Etruria may be explained by their being mostly of those periods when good art was rising, or had reached its zenith in Greece; by Greek taste not allowing itself to be vitiated by Italian influences; and by the vases being imported in great numbers from Greece. Art, which had originally been borrowed by Etruria from the Greeks, continued to be indebted to them for its subsequent progress; and the story of the advent of those figurative personages, *Εὐχέλρ* and *Εὐγραμμος*, shows how the Etruscans were beholden to the *handicraftsmen* and *draughtsmen* of Corinth for its full establishment among them; at a period when it was beginning to develop itself in Greece, and abounded in that simplicity for which it was then so remarkable.

It may also be observed that some even of the beautiful vases of the best period are not free from the elongated character which afterwards became so general in Southern Italy. There is the same tendency in the works of the Romans; and this Italian corruption in olden times is the more unaccountable, as the Italians of later (Christian) periods have been noted for their appreciation of correct proportion, contrasting most favourably in this respect with their Roman predecessors. Are we to conclude that this feeling had continued to hold its ground in Etruria from olden times, and that it spread thence into other parts of Italy? I leave this to the decision of others more capable than myself; but it is certain that the vases of Etruria have not the same elongated form as those of Southern Italy.

This is not the only point connected with the subject which is deserving of attention; and it would be curious to inquire why and to what extent the types of vases vary at the

same periods, in different parts of Greece, and how they influenced those of the Greek colonies in other countries.

The period when art reached its zenith in Greece was from 450 to 350 B.C. It declined from its great perfection rather earlier than 300 B.C.; and a feeling in favour of high finish and elongated forms had already become perceptible during the age of Alexander. Of this there is evidence in the coins, vases, and various objects of art which remain to us; and it is singularly, though unintentionally, confirmed by the remarks of Pliny on the style of Lysippus and Apelles. Those two great men are reputed to have carried sculpture and painting to the highest point of excellence; but when we make allowance for the bias of those who bestowed that praise, resulting, as it naturally would, from the taste of the age in which they lived, and when we find in the coins of that period the same value set upon high finish, a certain tendency to elongated forms, and the substitution of an elaborate instead of the bold broad treatment in the draperies and hair of the previous century, we perceive how exactly the peculiarities ascribed by Pliny to Lysippus and Apelles accord with the style of works of their era, and how, though thought to indicate perfection, they were in reality fatal symptoms. According to Pliny (xxxiv. 8), Lysippus *improved* sculpture, by marking out the hair *more minutely*, and by making the heads of statues *smaller*, and the body more *graceful and attenuated* than in older times, in order to give them the *appearance of greater height*; he was also remarkable for the *high finish* of his works, *regarding even the smallest details* (in which he was imitated by his son Euthyrates, though he aimed rather at the precision than the elegance of his father); and the "gracefulness" attributed to the figures in the paintings of Apelles (Pliny xxxv. 10), is consistent with the same style of the age of Alexander. It was then that the change gained ground which was hastened on by the false taste and luxury introduced from

Asia; and though we might not be led to that conclusion without the evidence of works of that period, their testimony sufficiently shows what was the character of the changes introduced by Lysippus and Apelles, and how high finish, with conventional or artificial grace, tended to the decline rather than to the perfection of art. The subject is too extensive to be treated in a limited space; and I will only observe, that these remarks only apply to the *comparative* merits of certain epochs in Greece, the best being from the age of Phidias (and Pericles), 450 B.C. to that of Praxiteles, or about 350 B.C.*; for even when art had ceased to be as perfect there as of old, it was still far superior to that of any other nation; it was a decline from perfection, not a fall: and the Greeks continued to be long afterwards the people of taste in ancient, as the Italians have been in modern, times.

9. But whatever may have been the cause of any exceptions, whatever changes took place at different periods, the Greeks were always the people most remarkable for taste, in which they continued to excel even after the conquest of their country by the Romans; and though some of their works did not attain to the excellence of those of the best period, and some may be pronounced unworthy of imitation, they generally show how fully their authors were impressed with love of the beautiful, for which they stand unrivalled. In the appreciation of form and proportion the Greeks excelled all other people; [and such was the beauty of their designs, both in small objects and on a great scale, that no people have ever approached, much less equalled, them. And even in the early infancy of their art, we may trace the tendency they already had towards the perception and the practice of the beautiful. They had also this great advantage, that men of first-rate talent were

* This is satisfactorily confirmed by the style of the Halicarnassus marbles, which though full of merit fall short of the excellence of those of the Parthenon. They are a most interesting link in the history of Greek art.

ready to aid in the production of objects in common use; as was the case in Italy also during her most flourishing periods; and it is of the greatest importance that industrial art should have the benefit of such assistance.]

Whatever the purpose for which an object was intended, it was never considered unworthy the attention of an artist; no false pride suggested to him the idea of degradation from such an employment: and it was the work which was honoured and perfected by his talents, not the artist who was lowered by the work. [Nor were the Greeks above adopting from those less refined than themselves, whatever hint could be obtained from their particular style of ornament: beauty was beauty to them wherever it was found; and it only remained to adapt it to their own wants in the most suitable way.

10. If the advantages arising from this real feeling for the beautiful were better understood at the present day, we should not have decorative art left to the accidental caprices of a mere decorator, nor depend for so many articles of use which ought to be ornamental upon the misguided fancy of an uneducated mechanic; nor should we have the hideous lamps, the monstrous tea-urns, or the whole furniture of our tables and of our rooms, which disgrace our civilisation. It is really surprising that among the variety of lamps, tea-urns, inkstands, coffee-pots, cruet-stands, and so-called "ornamental clocks," we can scarcely meet with one which is tolerable in form. But talent will be rare among designers so long as few are able to judge of the effects of their own compositions, or have any notion beyond "copying from the antique," *because* "it is antique," without entering into the true feeling of the original, or understanding in what its beauty consists. One therefore designs a cup or a tazza, and thinks he has produced a real "Pompeian article," *because* he has put together a certain number of details: totally unconscious that a mere repetition of ornament is not a design, and that the whole

when finished, having no *motive*, is utterly unmeaning. This putting together a number of parts to form a whole is indeed the besetting sin of incapable minds, and is too often witnessed in the productions of architects as well as of those who make ornamental models; and instead of the building or other work being conceived in the mind as a whole, of which the details are the necessary accessories, each part is added in order to *complete* the design; and as there is no keeping and no necessary connection between them, many a one is removed, altered, or varied without any reference to the general composition.

In the furniture of our houses examples of similar additions without an object, either for ornament or use, are abundant. Of such a kind are tables with geese or swans striving to thrust their necks against its central pillar, with no apparent reason unless to turn their less graceful tails to the company, and serving no more purpose than the wooden scrolls of another, that seem to have fallen on their backs upon the plinth.

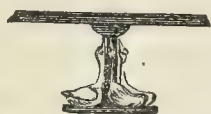


Fig. 1.

(4.)



Fig. 2.

11. It has been said by Pliny, that the Greeks combined the forms of several beautiful women, in order to constitute a perfect model; but the notion of this compound figure is such as a Roman might, but no Greek artist of real talent would, entertain. The latter would form in his mind the conception of perfect beauty, more perfect than he might find in one individual; but he would not put together the material parts of different figures to create it; and such a *construction* of a statue would imply an utter deficiency of genius.

Neither the Venus of Milo, nor any other known statue of

that goddess, was so formed; and it would be as unreasonable as to combine the best parts of several buildings to create a perfect structure.] Nor does a landscape made up of several different scenes, look as natural as a real view, even though this last may be considerably altered by the artist.

12. Some of our makers of ornamental works, instead of welcoming a good design when offered them, think only of extorting money from the person who wishes it to be made for him, and put on it a price double that of one of their own monstrosities, though this last may have cost them far more in its manufacture; showing that they would rather refuse a design given gratis than lose the opportunity of profiting by a customer. They think he wants it, and ought to pay handsomely for his caprice. And so he should, if it is a bad one; though the probability is that the manufacturer has not judgment enough to know whether it is good or bad; and few would be induced, by any amount of goodness, to relent through admiration for an elegant design. Thus, then, he who invents it is mulcted for his talent. But this would really seem to be the rule in England; for no sooner does a man suggest some useful invention, and claim the advantages from it which he merits, than he is forced to pay for a patent; which amounts to being *taxed* for his ingenuity, the country assuming the right to share, and even to anticipate, his profits. If we heard of such an anomaly in Turkey, or elsewhere, we should say, "Poor people! they know no better;" as we should if we found a variation in the weights and measures in different parts of their country, or other of the many inconsistencies tolerated in (*practical*) England.

13. [It is not always to ignorance in the artist who executes it that the blame of a faulty work is to be attributed: this, as I have shown, is as often chargeable to the public, and to the private employer; and when the model of a monument, or any work of art, is proposed by a designer who

has real talent, it is not impossible that the *committee* assembled to pronounce upon it may be incapable of forming an opinion on the matter. Thus it happened that an architect of merit, when requested to give a design for a certain building, was obliged to bow to the decision of an ignorant committee, because they had a preconceived notion that a particular feature was required for every large edifice. Nothing would persuade those worthies that a grand front could exist without a pediment with figures in the tympanum, whether it was Gothic, Elizabethan, or of any other style. In vain the architect represented that in the particular style he had chosen for the building a pediment would be a monstrosity; that buildings with large roofs like the Tuileries, or the town-halls of Flanders, had no place for a pediment; and to have both roof at the top and gable beneath it would be inconsistent. It was useless: they would not pay their money without one, and it was to be introduced somehow in the most conspicuous position. And thus the reputation of an architect had to suffer for the caprice of ignorant people; whose paradox amounted to this, that a man ought to appear with one hat below his chin and another on his head.

And *who* was the committee? or *who* is any committee? It has been said of committees, as of other boards, that they "have no consciences." It may be said with equal justice, that they have no individuality; for when a decision is come to by a committee, *who* has decided? no one knows, and no one is responsible for it. The principle is an unsound one. There is no objection to a committee of *consultation*; but every decision ought to be pronounced by *one* person of sound judgment, who should be, and feel that he was, *responsible*; and any one who knew that he would have to answer for a hasty or improper opinion would take care to obtain and follow the best advice, which too need not necessarily be confined to that of his official coadjutors. Make a man *respon-*

sible, and he will take means to find out what is best; and the simplest mode of selecting him would be by ballot among the members of the committee itself, who would thus be relieved from the too common habit of giving way to some troublesome, overbearing, member of their body, who, being the most busy and tiresome in the inverse ratio of his talents, gets his own way, in opposition to less assuming and more capable men.] As an additional mode of remedying this abuse, each member of a committee should be obliged to put down his opinions in *writing*, and give his *reasons* for them; for when several subscribe to the decision of one, that is not really their own opinion, founded on any reason of their own, but a mere echo, and often the result of ignorance or idleness.

[And how are committees too often formed? Some members are chosen because their reputation pronounces them to be well informed, perhaps on this, perhaps on some *other*, subject; some because their incapacity is overbalanced by a sounding title; and some for various reasons, which may or may not be valid; while many of them, when appointed, do not attend at all, and none are responsible even if they do. Hence we may pronounce this verdict, when their decision is bad:—that sums of money have been thrown away, and the taste of the country degraded, by the doings of “*some person or persons unknown*.”

What great undertaking could be expected to succeed when directed by such a council, without a responsible head? However useful a council of war for consultation, an army would find it a poor substitute for a general in the field; and in a country where the necessity of one chief is acknowledged by its institutions it does seem rather inconsistent to leave questions of importance to the chance decision of numerous individuals, without a *responsible* president.] Unfortunately, however, the want of a head, in our various state and other departments, is quite as much felt as in the direction of taste; and

the bugbear of undivided authority not only prevents all efficiency and responsibility, but keeps up a constant clashing of views, and effectually checks organisation.

14. [*Impediments* of various kinds stand in the way of our general progress towards taste, and these require first to be removed. Museums are of the highest importance for the instruction of the public; that the manufacturer, the artisan, and the working man may have easy access to objects of art. For it is not by the accidental appreciation of it among some individuals, that taste of any kind will flourish, or become general in a country; and the fact of the arts of production being of elegant design is a far surer criterion of its being spread through the community, than are the most beautiful objects seen in the mansions of the rich. Ere the public can appreciate works of art, they must acquire a true feeling for the beautiful wherever it is found; otherwise they may mimic and echo the approbation of acknowledged critics, while their judgment will be crude and uncertain. And it is to be regretted that the habits of waiting for the opinion of some other person, before they express (not to say form) their own, is not unusual with the English. The Great Exhibition of 1851 had, therefore, among its many beneficial results, the good effect of obliging them in some measure to judge for themselves; since the variety of objects, and the want of a ready councillor, made it difficult to obtain any other opinion than their own. Their decision, it is true, was not generally the best, or the most refined; and some natural objects, as the "Boy with the broken drum," the "Dog defending the child from the serpent," veiled statues, and commonplace, unelevated subjects, were their favourites. They perceived in them a resemblance to what was real; but they did not understand that such subjects present no idea fit to be commemorated in a material, and with a skill, that belong properly to high art. Yet the effort of judging had its effect;

and a still better opportunity for correcting the ordinary taste has been since afforded by the varied collection of the Sydenham Palace.

The want of museums in our manufacturing and other provincial towns has been a great evil. Hence the English manufacturer, or the decorative artisan, has long been in the habit of borrowing designs from France; the beauty of which is only comprehended by him because he finds they have been approved in the country of their birth. It is not *his* choice that teaches him to admire or adopt them, and he only appreciates their merits in proportion as they "pay." Nor is this to be imputed to him as a fault, for he cannot acquire taste when his eye is uneducated; and his inventive genius, if he has any, finds nothing to direct or develop it. The English, indeed, are particularly in need of such instruction: and the readiness with which artisans and others seek to profit by it when offered to them, is shown by the published "Report of the Department of Science and Art." It is, therefore, with great satisfaction that we hail the establishment of schools in various parts of the country, for primary instruction in drawing, and the means afforded to masters for studying at the central institution in London, preparatory to their taking the management of provincial schools. But this is not all that is required to give *general* taste. All cannot and need not draw, though all should be able to accustom their eyes to see and appreciate what is beautiful; and this can only be done by large *public collections*, and the constant contemplation of well-selected objects of art.

The schools of drawing, and the liberal manner in which books and useful models are offered for the study of artisans, as formerly at Marlborough House, and now at the South Kensington Museum, as well as the admirable lectures to which students may listen, cannot fail to operate satisfactorily; and even in some country towns the energy and exer-

tions of individuals in forming annual exhibitions have done good service ; but these laudable efforts are partial, and small compared to the mass of the population, who have not the same means of visiting objects of good taste that are afforded to the working classes of Italy, France, Germany, and other parts of Europe. Indeed, it would be a miracle if a people, not naturally imbued with an appreciation of the beautiful, should possess that quality, with so few opportunities of acquiring it.

These classes are by their employments debarred during six days in the week from visiting our museums of art ; and the Crystal Palace at Sydenham, which would be the best means ever offered for instructing them, is closed on Sunday. How then, with the British Museum, Sydenham Palace, National Gallery, and every other collection closed, is it *possible* for our people to obtain any knowledge of things they have not the means of seeing ? Nothing short of inspiration can make them appreciate works of art so carefully kept from them ; and the eagerness with which they *do* visit such objects, when they have the opportunity, is plainly shown by the crowds that press to the British Museum at the Easter holidays. But an occasional visit after long intervals will not instruct the eye, nor accustom it to works of art ; and if men who toil for their livelihood were to give up a day's wages every now and then to study art, we should indeed look upon them as more deeply imbued with the love of it than any Greek of ancient, or Italian of modern, days. How they are to arrive at this it would be difficult to explain ; but certain it is that no one can expect it to come to them by inspiration, or that they will sacrifice their wages to obtain it. In reply to this, some may answer, "Sunday is not a day for sight-seeing ; it is a day of rest : " and so it is of rest from *labour* ; and those who have other six days to instruct themselves and divert their minds, need not then visit any

collection of art. They may or they may not; though many a rigid talker scruples not to do so when abroad. It is the working man, who has six day's confinement, for whom an innocent and useful recreation is wanted; and we should not "strain at a gnat and swallow a camel," by leaving the gin-palace open to him, and closing the mechanics' institutes and other places of instruction, which would lead him to select, and indulge in, better pursuits.

Others again imagine that it would interfere with church service; but this would be obviated by not allowing a gallery or museum to be open till after two o'clock; and if it is not discovered that the great encourager of crime, the gin-palace, interferes with the church, it is difficult to understand why the contemplation of humanising art should do so. Such improvement to the mind is not like the mere love of amusement or excitement, as at a theatre; and, indeed, from this last no one is excluded by business or work during the evenings of the other six days; nor should the excuse of want of refreshment be permitted to sanction the buying and selling of beer and spirits; and at the Sydenham Palace all goods that are for sale should be shut up as in a shop. The opposition to the Sunday opening of museums of art is not surprising; for what useful innovations were ever proposed in England without it, from public coaches, machinery, steamboats, railways, and the rest, down to Minié rifles? And it requires years and years to get rid of a Smithfield Market, intramural interment, (the putrid state of the Thames,) or any other nuisance. Great hostility was even shown to Sunday-schools, when, in 1781, they were first established for instructing those in humble life in the usual routine of education. It is therefore only consistent that *this* Sunday-school for another improving branch of instruction should be opposed; but the time will come when a more practical generation will wonder at our blindness, which might be an innocent one if it did not commit an injustice.

Nowhere is wholesome recreation so much required as in England, where the frequent occurrence of wet weather so often prevents the working man from seeking it in the country, and drives him to idle amusements and to drink. For it is folly to pretend that men who have been working six days will not seek, and do not require, some kind of recreation; and if a good one is not provided for them they will too frequently be tempted to what is bad. So far from tending to irreligion, it will make them less animal and more intellectual, consequently, more soberminded and religious; and we shall do better to provide a remedy for ignorance and drunkenness, than persist in their encouragement.

Let us shut the gin-palaces, and give the people innocent recreation and instruction; we shall then confer on them a benefit, and shall discover that Englishmen are not worse than French or Italians, nor less Protestant than the Prussians of Berlin; while we shall find them less drunkards than they are now, and capable of understanding what we now expect them to see without having it presented to their sight.]

15. But besides these impediments thrown in the way of artisans, and others by the closing of our public collections on the very day when they have leisure for visiting them, we seem to have devised others, in the expense and loss of time consequent on their removal to an inconvenient distance from London; and the experiment of the Crystal Palace at Sydenham has shown how much more the public and its public-spirited originators would have benefited had its site been more accessible. And though the idea of collecting all objects of art in one building is very sensible, and the facilities afforded to those who visit the South Kensington Museum reflect great credit on the organisers of that valuable institution, its position in the outskirts of London is certainly less convenient than the more central sites of Marlborough House and the British Museum; and those who object to the transfer of all works of

art from the latter collection to that of South Kensington have a strong argument in favour of their being left in their present more accessible locality. It is true that the former site was no longer available, and there may be a difficulty in finding sufficient space for the increasing size of the collection in the town itself, but it is also true that the distance entails loss of time and expense on those most likely to profit by it, who are seldom able to make such sacrifices.

It is also to be regretted that the exterior of the building at South Kensington should not present architectural features more in unison with the objects it contains, and more in accordance with the advancement of modern taste. But though this might be considered a necessary part of the instruction to be conveyed by it, we may for the present rest satisfied with the benefits to be derived from its varied collection, together with the facilities afforded for study and for reference to so many useful works; and we may hope, when the country is fully convinced of its importance, that the external aspect of the building will be made worthy of its internal merits.

16. [In mentioning "schools of drawing," I may be thought to have used a strange obsolete expression, as custom has called them "schools of design;" but I can find no other meaning in *écoles de dessin*, or *scuole di disegno*; and drawing has no need of being ashamed of its name. Another and a better title, "schools of art," has now been applied to them, and it is satisfactory to know that the talents of those to whom the management is committed are a guarantee for the instruction they afford, and are calculated to allay the apprehensions of any one who might think the original title tended to encourage the students in a belief that their particular calling was to invent "designs."

17. Hitherto drawing has in England been ill-fated; though of such importance to every artist, that none deserves the name unless he excels in it; and the neglect it meets with at once

accounts for the faulty execution in this country of the many common subjects which are so admirably executed in Italy and France by the same class of draughtsmen. It is an indifference to the necessity of drawing that leads many a tyro, who scarcely has learnt to draw a line correctly (much less to make accurate studies of the human form, or to understand the art of grouping figures in a composition) to lay aside the pencil and adopt the brush; when he wonders, too late, that he has never been able to display the talent or obtain the credit of an acknowledged artist; and some even excuse their ignorance of drawing by some fallacy, such as, "there is no outline in nature," as if a real object could be delineated without *circumscribing its limits*.]

It is true that when the whole surface of an object is represented in colour it should have no apparent outline, but it would be difficult to *draw* the *form* of any object without one, or to learn to represent it without first defining it by lines. Wisely, indeed, does Cennini urge how "necessary it is you should be accustomed to draw correctly," and the pains taken by the greatest masters of Italy is fully proved by their original drawings. The importance attached to the "line" in ancient times has not only been exemplified by the well-known story of the line drawn within a line by Apelles and Protogenes, and by the saying "*nulla dies sine lineâ*," but is shown by the few specimens of Greek drawing that have come down to us, on walls and vases. And conventional and imperfect as was the art of painting among the Egyptians, their skill in drawing was beyond a question; as the figures in the unfinished chamber of Belzoni's tomb at Thebes fully prove, where in the outline of an arm of colossal size each portion is drawn at one stroke; as from the shoulder to the elbow. However deficient in the perfection of art, they could *draw*; and to copy the long bold lines of those figures would be

admirable practice for any one in the *free use of the pencil* even at this day.

Accuracy of eye and command of hand were also the merit of that circle, which led to the well-known saying, "more round than the O of Giotto;" and it is as necessary first to acquire perfect drawing as it is to copy from nature for a long time before attempting ideal figures. Those who advise students to *sketch* with the brush are only right when they recommend it *after* great and successful practice with the crayon; as it *then* tends to give freedom and boldness of execution; and if by the term "*sketching*" they mean only copying landscape, they are wrong in so speaking of drawing, which is applicable to other and to higher purposes. Great advantages are also to be derived *then* from drawing at once in pen and ink; which, not admitting of correction, requires the eye and hand to be certain of their work before each stroke is given; but those who think that "an outline should be very slight," forget that thin or thick, light or dark, it is equally a conventional mode of representing form, and that the less firmly it is marked the less proof it gives of previous thought and of the power of execution. Nor will the practice of accurate drawing lead any but those of the lowest capacity into a hard style; and the outline, whether strong or light, will be easily abandoned when the coloured is substituted for the linear form. Indeed, it would be well if, in learning to draw, our early attention were more directed to the human figure and the variety of lines than to landscape, where form soon ceases to be carefully followed, and where the brush is often employed before the use of the pencil has been mastered.

18. [But while drawing is so essential, it must be recollected that the use of the hand, and the direction given it by an accurate eye, will not suffice to *form taste*; they only afford the means of execution; and while we admire the skill of the French in drawing, and admit their inventive talent

for design, we cannot be blind to their deficiency in that purity of feeling which marks the taste of Greece, or of Italy. They have the desire to excel, and the full conviction of their success; both useful in their way, for too great diffidence impedes exertion; and if their works often err in overwrought ornament, they may find an excuse in the injury received by their taste from the splendid monstrosities of Louis XIV. (especially those of the latter part of his reign), and the *rococo* of his successor, when false refinement and affectation led to mannerism in figures and to corruption of form.]

19. The French, indeed, began at a very early period to give notable signs of talent in design; and the statues at Rheims, Chartres, and other cathedrals, show that sculpture was quite as advanced there in the 1200 as in Italy. Nor is this to be ascribed to the "body of masons," who were of every country, and worked wherever they found employment; and France gave evident proofs of native genius at that period, which are established by the glass windows of her cathedrals and other decorative work, as well as by a comparison of the style of her sculptures with that of other countries. And though France, like Germany and Italy, had been indebted to Byzantine artists for many centuries, even to the middle of the 1100, for the best models, the French, in the following century, already attempted to throw off some of the formality of the Byzantine school, and form a style of sculpture independent of it. Some figures, it is true, retained much of the old stiff drawing, in the early part of the 1200, while others displayed greater freedom and truth; and at the middle of that and the beginning of the next century, they had not only attained to an independent character, but were remarkable for elegance and correctness of design. Such are the *best* statues at Rheims and Chartres: (for some of them differ in point of excellence; and probably date a few years later than the rest); and such are many at our Wells Cathedral, where,

I think, we may sometimes detect the hand of a French sculptor. And so admirable was the peculiar character of those statues that there is reason to regret that Christian art was not allowed to continue its own independent course in sculpture, as it did in painting, and aim at that perfection which the mere copying of the antique will not ensure. Had Christian painting been always dependent for its ideas and subjects on the antique, it would never have been what it was in the hands of a Raphael and the early masters; and Christian sculpture was equally capable of taking its own line. It too could abound in expression and feelings, to which Pagan art always was a stranger.* There was this objection to the *imitation* of the antique, that the Christian could not really enter into the feelings which animated the Pagan sculptor; while, on the other hand, the Christian had subjects of a higher order than the Pagan, representing, as they did, far nobler sentiments. We admire and very properly acknowledge the wonderful merits of ancient Greek statues; but it may be doubted whether the attempted revival of classical art in the *cinque-cento*, or *Renaissance* period, was as beneficial to Christian sculpture as has been generally supposed. Nor did it then follow the same judicious course in its imitation of the antique as at an earlier period, when Christian artists benefited by the study of ancient models without slavishly copying them; as is sufficiently illustrated in the case of Nicola Pisano and others; and we have only to look at the works of the Italians in sculpture and bronze to be convinced of the high position taken by Christian art before the era of the *cinque-cento*. And the judicious use made of the antique, especially by the Italians, during the three previous centuries, shows how much more benefit may be derived from the *study*, than by the direct *imitation*, of ancient models. It is this

* See below, p. 284.

imitation which has justified the remark that Christian sculpture "retrograded when it borrowed, in the sixteenth century, the style of Pagan antiquity."

France, it is true, was left far behind by Italy during the 1300 and following century; and was henceforward indebted to her for aid in the highest branches of art; but still she continued to show great proficiency in decorative work, as we learn from the palaces of her kings during the Renaissance, in the embellishment of which native, as well as Italian, artists were employed.

20. [But while mentioning the skill of the French in design, it would be unjust not to speak with commendation of that of Belgium, which is the more remarkable as it is not confined to decorative art; and every one will admit the high position that country has taken in sculpture and the highest branches of wood carving.

Whatever praise may be justly bestowed on the modern taste of the French, in certain branches of decorative art, and however much this may have been encouraged by them, still it is not desirable that we should adopt from them all our models; for while many of their ornamental works are creditable, they are too often deficient in breadth of style, grandeur, and simplicity. They are also disfigured by elongated proportions, broken outlines, and superfluity of ornament. Nor can an exaggerated sentiment be compensated for by invention, fancy, or minuteness of detail. With great quickness of perception and a fondness for effect, the French seem to appeal in their works to the senses rather than to the feelings; and to seek to captivate rather than to command admiration. Their figures too offend from a voluptuousness, theatrical treatment, a mock fierceness, or an over-evident stamp of academic study; and they fail in ideality and elevated sentiment. They are also apt to appear conscious of being looked at, and you feel sure, if they could speak, it would be in French. Indeed, if Gallicism is found

to have done an injury to the taste of Benvenuto Cellini (as shown in his Diana of Fontainebleau and various works he executed in France), as well as to that of some other Italian artists, we may feel sure that the French, talented as they are, should not be blindly imitated.] But we shall do right to follow their example in the study and practice of drawing; and, while we avoid their mannerisms, we may admire and emulate their talent for invention and design. We may also imitate them in the importance they attach to bronze-work, for useful and ornamental purposes; and though we must justly applaud the efforts of an Elkington, we cannot but regret that France should supply us with so many bronze castings, which ought to be the productions of our own artisans.

21. [The great point, both in enabling the hand to execute, and in giving the power of appreciating the beautiful, is the education of the eye; for, as the ear is the judge of sound, so the eye perceives the harmony of proportion, form, colour, and every other condition, on which beauty depends. Proportion I place first, because it is the first condition of beauty, whether in the figure, the flower, the vase, or the building. It is like *time* to *music*; and the first impression of an air is pleasing if the time is correct, as rhythm was the first step towards harmony. So too proportion has the first and most striking effect, appealing as it does most immediately to the eye; and no amount of excellence in form or details will compensate for a disregard of it. Nor would the most elegant Greek vase, or the most classical building, continue to be beautiful if its proportion were altered. What would so many Italian monuments that command our admiration be without it?] What is it that overcomes and disguises the deformity of those huge scrolls, or inverted consoles*, which

* It would be well if other merits in the "Marble Arch" at Cumberland Gate compensated for its inverted consoles.

perform the office of buttresses to the dome of Santa Maria della Salute, at Venice, but the beautiful proportion of that part of the building itself?

It is certainly remarkable (as I have already shown in p. 183), that the modern Italians should be so superior to their Roman predecessors in the perception of true proportion. One of many instances of this may be seen in the figures, and other accessories, crowning the Antonine and Trajan columns, given by Piranesi; and the beautiful fountains before St. Peter's, at Rome, by an injudicious alteration of their proportions, [might easily be made to assume the graceless and unmeaning character of our dumb-waiters. This too may be observed of fountains, that the column of water is almost as much connected with the maintenance of proportion as the basins into which it falls; and arbitrary or incongruous combinations should be avoided, whatever the character of a fountain may be. Thus an elephant spouting forth water is unnatural and monstrous; and water running down stairs is objectionable; for though the caprice was adopted by the Arabs and by the Italians, as well as at Pompeii, it is the result of bad taste and poverty of invention. Nor should a fountain obtain any merit for throwing up a column of water to an immense height, beyond that of being the largest of squirts; and its claims for precedence should be laid among hydraulic machines, instead of works of taste.]

The importance of proportion was fully appreciated by the ancients, and the first chapter of Vitruvius begins by pointing out how necessary it is "for the existence of symmetry;" and if the Romans did not really comprehend it to the same extent as the Greeks, or the later Italians, they at least admitted its value. Symmetry, in one sense, may be called the harmony of proportion; but there is really a difference between proportion and symmetry, and the latter applies to the concord of the different parts with each other as well as with the

whole, as in the human figure; while an object which is of one simple form, without detachable parts, is regulated by proportion, as an obelisk, and other simple geometrical figures. I do not, however, pretend to fix this as the real definition of the two terms, but only mention the sense in which I view them; and that symmetry which implies "uniformity," or the exact correspondence of parts (as of a building), I should rather call "symmetricality," or "symmetrical arrangement."

[In no country of the present day is proportion so well understood as in Italy; and nowhere is its importance so clearly perceived as in the buildings of that country, where it oftentimes happens that at first sight you are charmed with the effect of an edifice, which, on closer examination, is found to be deficient in form and in many of its details, or replete with the barbarisms of broken outlines and the excrescences of a debased style. And when such imperfections of form as well as of details are concealed by the general effect produced by the harmony of proportion, it is evident how essential this last is for captivating the eye and giving the impression of beauty.] Our own Wren may also be cited for his thorough appreciation of it.

[As the perception of proportion, like the accuracy of the ear in judging of sound, is a natural gift to some persons, it may be improved by study; and it may be taught, like music, to all who are not destitute of every feeling for harmony. Some, indeed, are incapable of comprehending it, as some are unable to distinguish colours: but the habit of seeing and having the attention drawn to it may go far towards instructing the generality of those who might otherwise be left in a wilderness of error.]

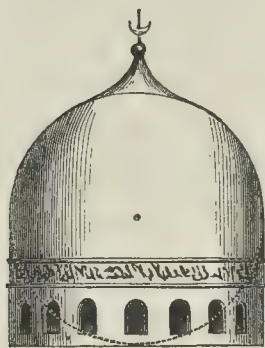
Some, indeed, think that general notions of proportion can be easily obtained by observing certain rules applicable in all cases, without the aid of the eye, which they hope to over-rule by these fixed axioms; but if they were sufficient,

all might equally attain to excellence in the knowledge of proportion; whereas, on the contrary, experience shows how rare it is in architecture, or in any ornamental composition. It is this subserviency to mere rules, without any aid from the perceptive faculties, that has led to many errors in buildings of modern days, where the proportions of some Greek, or other, edifice, have perhaps been accurately copied without any reference to its position, and with a total forgetfulness of the important fact, that it requires a different character if built upon a level plain or upon a height. Again, how different are the proportions in different kinds of architecture, as in the Greek and Gothic styles; and the same rules that will serve for a depressed pediment will not apply to a pyramid, a gable, or a spire. Yet the eye will equally perceive correctness or want of proportion in any one of them; and the Greek, and the varying lancet, window have both their proper proportion, though so different in the ratio of the breadth to the height. So, again, with animals, or other natural objects; and the horse and the cat, the snake and the lizard, are equally beautiful and consistent with proportion, though very different in their conditions. And is not the eye a far better judge of this harmony of proportion in all these animals than any rule by which it could be tested?

Rules, however, may be laid down for the proportion of all objects of geometrical form, and even for more complicated figures; and they would be of great use in correcting the deformities we are daily condemned to behold in our buildings, vases, and articles of ornament and use. It is true that no one can expect general rules to be laid down for the proportion of all objects; the instances of the snake, the horse, and others, suffice to show that this is impossible; and it is evident that we must appeal to the perceptive faculties. When, however, the eye has told us that the proportion of an object is good, it is of importance, *if possible, to discover* the conditions

on which it depends. Thus, Mr. Lane has found that the best proportioned Saracenic domes are those in which the height and breadth are described upon a circle. Two lines are then let

(5.)



fall perpendicular to the two opposite edges of the circle, to form the upright sides; and another line drawn horizontally, as a tangent to the lower edge, forms the base of the drum of the cupola, the height of which reaches about half-way to the centre of the circle; and in this are placed the windows, with an inscription above them running round the neck of the dome. Its point is then formed by

the addition of two ogee curves meeting in a point, surmounted by a crescent, and other ornaments.

[It is certainly easier to detect imperfections in form and detail than in proportion; and as the perception of proportion is of the highest importance in judging of effect, and as it has the greatest influence on the eye of all who appreciate beauty, so it is the last (when not possessed as a natural gift) which the uncultivated taste attains. Professor Cockerell observes, "that we begin by admiring ornaments, details, and forms; but it is in a more advanced stage only that we make all these subordinate to that sense of mythical proportion and that harmony of quantities which affect the mind like a mathematical truth; and like a concord of musical sounds on the ear, are perceived, and confessed as obvious and unalterable." . . . "Custom, convention, and often incapacity of discernment, reconcile us to those proportions we are most used to, and we are blind to those defects which a fresh and accomplished eye is at once shocked at; yet the sense of vision so studied by the Greeks is to be educated, like a real moral sense, and every other, by the diligent culture of science." . . . The informed artist recognises the claim which

this great element of art has above all others on his studious attention ;” . . . “he seizes with delight any rule that will conduct his works to the excellence so apparent and so universally admitted in the Greek proportions ; he rejoices in any of the slightest elements of the grammar and syntax, by which he can attain to their eloquent language ; and he confesses that without them all is confusion, hazard, and fashion.”

22. Good and well defined rules are, indeed, most necessary in this, as in every other, study ; even those few who possess a natural perception of the beautiful are benefited by them ; and the generality of men cannot receive proper impressions without their aid. Nor can instruction be imparted to a beginner without enabling him to understand what the eye is taught to admire. Rules, too, are required for correcting such caprices as tend to mislead the taste ; and the unfledged beginner must be content to be guided by them, until he has received the power of independent flight. But taste, while kept in order and directed by rules, should not be wholly *dependent* on them ; they may be the leading-strings of the tyro, not his crutches, on which, when grown up, he is to rely ; and unless he can then afford to act without them, he will never rise above mediocrity and imitation. Nor can rules be framed until a subject has been long established and thoroughly understood.

It was this subserviency to fixed rules that cramped the arts in ancient Egypt, which never escaped from the trammels of conventionalism. The conventional is of its own age and country, and is destined to perish. Not so real taste, which is of all ages, and of every country which has the talent to comprehend it. The Greeks, with their genius, could not submit to have it fettered ; and it is right to bear in mind that no new successful effort of genius was ever hampered by, or dependent on, mere rules. But it is necessary to *have the genius*, in order to be independent of them.

Rules embody, and convey to students, what experience has established, and they guard against error; but] good taste, as Sir W. Scott truly says, “cannot be established by canons and *dicta*,” and the works of the old Italian masters owe their marked superiority, over those of a later and a corrupt age, to their being the result of genius and feeling, while the latter were subservient to technicalities and rules. “Nobody,” says Locke, “is made any thing by having of rules, or laying them up in his memory; practice must settle the habit of doing without reflecting on the rules; and you may as well hope to make a good painter or musician extempore by a lecture and instruction in the arts of music and painting, as a coherent thinker, or strict reasoner, by a set of rules.” To trust to rules in the formation of taste is hopeless. [No art ever began with rules, as grammars never formed a language; and what Horace says of words,—

“Multa renascentur que jam cecidere, cadentque
Quæ nunc sunt in honore vocabula, si volet usus;
Quem penès arbitrium est, et jus, et norma loquendi,”

holds equally true with regard to ornamental design. But the changes or innovations must be such as taste and good judgment can sanction; and though genius may be encouraged to invent, arbitrary ornament should not be tolerated, nor changes be made from a mere desire of novelty. No ram’s horns, and ammonites, should be substituted for volutes in an Ionic capital; no copies of natural objects should compose a work of decorative art; and no borrowing from a design of a totally different character should be resorted to in order to make up a deficient corner. It should have one motive or intention throughout:—

“servetur ad imum
Qalis ab incepto processerit, et sibi constet ;

and many an Horatian maxim laid down for poetry may well be applied as a rule in æsthetic art.

23. The early steps made by the Greeks were gradual and judicious; they borrowed much from the styles of older people with whom they came in contact, and the same adoption and adaptation of other notions (*parce detorta*) are seen to the last in the various details borrowed from "the barbarian;" but which, by being made really beautiful, became their own. They did not borrow *in order* to compose a new design, but because what they selected suited it. This remark is of course only applied to their ornamental art, not to their sculpture of the human figure; and though this last had in early times a rude character, owing to their imperfect skill in representing it, they gradually improved, and approached nearer to truth, as they advanced. But neither at first, nor after their taste had become formed, did they confine themselves to conventional rules; and even their architecture was free from the trammels to which we have subjected it. The proportions of a temple were not laid down according to fixed measures, without reference to the position it was to occupy; they consulted their eye rather than their compasses; and a column was not necessarily of the same number of diameters, *because* it was of this or that particular order. Hence it happened, that no two Greek temples, no two sets of columns of the same order in different buildings, were of the same proportion; as no two temples were confined to the same kind of site. The hill, and vale, temples differed.

24. Among many mistakes made in modern Europe is the custom of representing pictures on materials ill-suited for the purpose: another is to make ornaments in decorative art direct imitations of natural objects. Even certain materials are suited to particular kinds of art; and thus panel, canvas, and the fresco wall are those most proper for paintings. In all of these, near and distant objects and the various degrees of distance can be represented with proper effect, by the distinction of colour as well as by the effect of aërial perspective.

But when metal, stone, and similar materials are employed to represent landscapes, or a number of distant figures in bas-relief, they attempt what is out of their province: the absence of aërial perspective in the metal or stone confuses the foreground with the distance, and they both continue to appear (as they are) on the same plane. Sculpture, therefore, should abstain from a mode of treatment beyond its own sphere. It has its own vocation distinct from that of painting, and it only injures its own credit by aiming at one which belongs to the sister art.

The error abounded in the middle ages; but the Greeks were satisfied in bas-relief with figures in the foreground; and the same maxim recommended by Horace for the stage, — "*Nec quarta loqui persona laboret*," — led them to avoid the introduction of figures four deep upon the stone. They had no bas-relief in marble or bronze representing the battle of Marathon, still less that of Salamis: similar subjects were reserved for painting; and it was for the tasteless Romans to disregard that principle, by representing the confusion of battles upon such unsuitable materials.] Adaptability is to be consulted in all cases. What is pleasing in one place is not always so in another; and experience tells a painter that even a view which looks well in nature is not always suited for a picture. A ship is a beautiful object, but it is out of place in sculpture; and if its presence were required to illustrate some important event in the life of a naval hero, the sculptor would do well to transfer the treatment of that subject to the painter, and select some other record of him more suited to his art. If it *must* be introduced, it should be done in the least intrusive manner, and with the least appearance of detail; and a Greek in representing the departure from Troy would prefer to introduce a small *portion* of a ship, rather than the number of such unsuitable objects

which would appear in mediæval sculpture.* The waves of the sea, clouds, and trees, are equally ill-adapted to a bas-relief; and all attempts at distance and perspective are unsuccessful. [Nothing but the exquisite skill of a Ghiberti could make us tolerate background landscape, and distant as well as near figures in bas-relief, or the different actions of the same persons, on one field; and, however we may admire the execution of the beautiful gates of the Florence baptistry the introduction of background in bronze or marble is an unjustifiable liberty.] This opinion, I am glad to find, accords with the remarks of Sir C. Eastlake, who (in his "Literature of the Fine Arts, p. 98) says, "the Greeks, as a general principle, considered the ground of figures in relief to be the real wall, or whatever the solid plane might be, and not to represent *air* as if it was a picture. . . . This was founded on rational principles. . . . The shadows thrown by figures on the surface on which they are relieved at once betray the solidity of that surface;" . . . and the "absence of perspective in Greek bassi-relievi was not from absolute ignorance of its principles, but from a conviction that they would be misapplied in sculpture." He then observes that even Vasari "admits the absurdity of representing the plane on which the figures stand ascending towards the horizon, according to the laws of perspective, in consequence of which 'we often see,' he says, 'the point of the foot of a figure, standing with its back to the spectator, touching the middle of the leg,' owing to the rapid ascent, or foreshortening of the ground. Such errors, he adds, are to be seen 'even in the doors of San Giovanni.'"†

[Stone and metal are suited to statues and bas-reliefs, not

* See the ship in the departure of Chryseis, a painting found at Pompeii. (Pl. XXI. vol. i. Inghirami Gal. Omer.)

† Vasari Vit. Pit. Intr. Scult. ch. iii. where he speaks of the inferiority of the antique treatment of bas-reliefs and of "mezzi-rilievi."

to *pictures*; and the same applies to wood and other materials, where objects are carved upon them; nor should a landscape be tolerated on a fictile vase, nor even as a coloured painting on a porcelain cup. This is one of several faults in the sump-

(6.) tuous vases of Sèvres manufacture; which also not uncommonly offend in proportion, and in an extravagant richness of decoration. There too we often find a landscape, or a building; and this is not only disagreeably contrasted with the tawdry gilding, or the heavy colour, of the surrounding groundwork, but being placed in a square compartment, at the front (or back), appears to be cut in half as you walk to the side, and ceases then to form part of the orna-



mentation or general effect. A subject to decorate a vase should be so placed that some equally interesting portion

(7.) of it should always be before the eye, like those bas-reliefs so admirably introduced on the best Greek vases. And when, which is sometimes the case, the Greeks placed figures as a central picture, this may either find an excuse from the vase having been intended to stand where it could only have been seen in front, or may be used as one of many arguments to show that



even *they* were not always right, and must not be *blindly* imitated for their name alone. The same inadaptability of material applies to the representations of pictures on tapestry, worsted-work, and the like; which, after all, are only imperfect copies of copies; and however well they may be executed, they only excite our admiration in proportion to the difficulty or the improbability of success on such unsuitable substances. They aspire to what is out of their sphere, and they fail to succeed in what they profess; for, after all, the picture, be it ever so good, is always inferior as a picture, and all the labour has been spent to produce what is imperfect. To attempt

what can only be deficient must necessarily be a wrong principle; and what can be farther from art than a design in worsted-work, where every line is broken up into a minute staircase?]

25. Besides the difficulty of representing pictures on materials unsuited to them, there is the impropriety of applying the painted object to a purpose which directly interferes with its effect; and what can be more inconsistent than to have part of a landscape on a plate buried beneath meat and vegetables, or the juice of sweetmeats? It is out of character with the purpose to which the object is applied. To make a picture on a plate is a false principle; and a picture on porcelain is generally out of place. In proportion too as it is well executed, the error is so much the greater; for at the same cost a real work of art might be made, which would be good, not merely wonderful. Some designs of Palissy-ware, again, may represent eels and other live or dead creatures admirably; and they have their merits; but if used for domestic purposes they would offend against reason and good taste; and, indeed, it was not the intention of that persevering and persecuted man that they should be so employed, but rather, as Labarte observes, to adorn the "dressoirs," which were filled with vessels for show in the houses of the rich. They are the result of ingenuity; and, as objects of caprice, they find a proper place in a cabinet of curiosities. Even the designs of the so-called *Raphael-ware* might have obtained a better position on more suitable materials; though much of the admiration bestowed on them arises from a preconceived notion, which blinds many to the fact of the figures being frequently deficient in grace, and to their colours being almost always disagreeable. How often is an opinion pronounced out of deference to custom! and the name of the real or *supposed* artist is apt to decide a spectator's praise. Hence Majolica-ware has been overrated; and, moreover, the

higher pretensions of its designs, after the manufacture was transplanted to Italy, rendered it less suitable to common purposes than when in the hands of the Saracens, to whom Europe was indebted for the useful art of glazing earthenware.

Materials the most suitable for figures, as stone, terra-cotta, and others, may be rendered less so by certain circumstances which alter their conditions; and not only are granite, porphyry, and other coloured stones, ill suited to sculpture, but even marble, when polished, offends by its shining surface. Again, the gilding of statues is injurious to their effect; and we are not surprised to find (Pliny xxxiv. 3) that the child, a work of Lysippus, which Nero covered with gold, was thought to be spoilt, and was therefore stript of that intrusive coating: and Pliny complains of a statue of Janus being "hidden by the gold that covered it" (xxxvi. 5). Nor will the value of any material compensate for its unsuitableness. If statues of gold were really of that precious metal, they would not be admirable to any but barbarians; and the same may be said of the pretended emerald figures of the gods, even had they been of real stone, and not, as they were, of glass. Nothing can be more meretricious than the effect of such materials; and glass is sometimes used for purposes where a more durable substance is required, and where its transparency, or its reflecting surface, renders it objectionable: as in figures, large colourless vases, &c. There is the same impropriety in making figures of china, or glazed earthenware; and it is only a genius like that of a Luca, and the other Della Robbias, which could compensate for the bad effect of reflection from the glazed surface of their admirable bas-reliefs. They would be intolerable in works of inferior merit. And this is one of many proofs that the mere fact of a talented artist having succeeded in some particular method is not sufficient to justify an imitation of it; and that judgment is necessary to prevent a *blind*

adoption of any style or peculiarity, which may, after all, be an imperfection that none but a genius could overcome. Adaptability of materials should never be lost sight of; and even the quantity of labour bestowed upon them should be proportionate to their excellence and their durability. Thus, it is inconsistent with reason and good taste to make vases, or other things, to which glass is really well suited, overcharged with a profusion of carving and elaborate ornament. To see a great amount of labour bestowed on so perishable a material excites a feeling of uneasiness and regret, which would not have been felt if the vase had been of gold or silver; and the same sum paid for the fragile ornament would have been better and more safely spent on a durable work of higher art.

26. [Whatever belongs to decorative design must be subservient to its conditions; and if, as is sometimes permitted, a small picture forms part of that design, it must conform to the general effect, as in the Loggie of the Vatican and other Italian buildings, where medallions and vignettes are admitted into the general decorative composition. Even fresco painting is bound to suit its effect to the ornamentation of a building, and whatever is part of a design must accord and harmonise with it; while this must itself be subordinate to, and depend upon, the general features of the building. But pictures on panel and canvas are not subject to the same condition of ornamentation as wall-paintings, as I shall have occasion to show.

27. The imitation of natural objects for mere ornamental purposes usually disagrees both with the materials used, and the place where they are introduced. It is also an indication of poverty of invention and a deficiency of taste for design. In a carpet where roses and other flowers are figured, we find the same impossibility of correct representation already mentioned: the very best rose is always unlike the reality, while the imagination is diverted from the general effect by the comparison of this imperfect copy with the natural flower. The same

objection applies to imitations of architecture, or any other real object on a carpet; and the nearer the resemblance, the more glaring the inconsistency of making you appear to crush roses, or trip over the tracery of a Gothic window.

Not so with patterns, which are what they pretend to be, which aim at proper effect in form and colour, and which answer their real purpose — ornament — without disturbing the imagination, or proclaiming their own incompatibility. They decorate instead of affecting to represent; and thus it is that the graceful combinations in Saracenic and other patterns delight the eye, while they perform most completely the object they have in view. Nor are they limited in their colour, as when nature is copied; and they assume whatever hue may suit the general harmony of the whole design without violence to truth.] The endless variety in the patterns of the Arabs shows an extraordinary talent for combination of forms, much more varied than those of the Greeks; and the prohibition against imitating the human figure, or natural objects, was compensated for by the stimulus given to the inventive talent.

To obtain ideas for ornamental art, nature should be carefully studied, and the beauties she presents should be fully understood; but she should not be directly copied in an unsuitable material. It is the beauty of effect and the sentiment of natural objects that are to be there represented, not the actual resemblance; and though many extol the imitation of real flowers and foliage in the mouldings of some English and French cathedrals, it is rather the skill shown in the resemblance, than the effect, which they really admire. However good the copy, it has the fault already objected to, of being an imperfect representation of what it vainly attempts to imitate; while it should have been satisfied with its proper and humbler office of merely ornamenting.

28. [The Greeks were fully alive to this. Their mouldings were not servile copies of flowers or other natural objects:

they took the idea, the *motive*, of the object, and made it an ideal imitation, which was much more pleasing to the eye than the imperfect attempt at representation in an unsuitable material; and it is evident that no copy of a real honeysuckle would have been as beautiful an ornament as the conventional flower and leaf we see in a Greek building. The same idea was carried out by them in fancy borders, on walls, vases, furniture, dresses, and objects of common use; and, generally speaking, in all ornamental decoration where figures were not introduced. It was only in the decadence of art that they adopted a somewhat closer imitation of real flowers, as on the vases of Southern Italy. With the Greeks, "the beautiful and the good" were closely allied; and if they did not, like one great German writer, include the good in the beautiful, or consider the latter the higher of the two, they thought that nothing in art could be good without being beautiful; and to be *καλὸς καὶ ἀγαθός*, "beautiful and good," was the highest merit even in man.] Indeed, the former word was often synonymous with "good;" as "valour" was with "virtue;" which last idea finds a parallel in the use of the word "brave" in French and Italian, as of old in English.



[The same feeling and ideal conception of the beautiful enabled them (as I have already observed) to perceive, in the ornaments of people less cultivated than themselves, whatever possessed the germ of beauty; and whatever they did borrow they improved. Nor was this unworthy of their genius; and it would be well for us to recollect that the most accomplished minds have not been above the adoption of what was beautiful from other sources. They preferred what was good to what was merely new; and it is far better to have one thing good than any number of new ones on the sole recommendation of novelty. Nor was novelty the same recommendation to the Greeks as to us; and when our vendors of ornamental works

assure us that they are the "newest" (instead of the "best,") and when good things go out of fashion to give way to some fanciful novelty, we may vainly hope for taste either in the maker or the public. The Greeks, on the contrary, repeated the same favourite design for years, when once pronounced good; and when brought within the reach of all, it was common without being considered "vulgar:" old types were also reproduced under new forms, and new ones were not devised by them because new ones were required, but because they were suggested by their genius. There was not a manufacture of novelties, nor did their talents pander to the cravings of wealthy caprice, and neglect the more important duty of beautifying objects of daily use and humble life.] Even the fickle Athenian, with all his rage for new ideas and speculations, did not allow his love of "some new thing" to influence his taste, or induce him to discard good works of art for some fashionable novelty; and he did not *prefer* the foreign to what was Greek.

29. [Among the common errors of people deficient in judgment, and particularly of the English, are a blind admiration for the works of foreigners, (often without the necessary inquiry into their merits,) and a disregard for greater talent in their own countrymen. Nowhere is this more striking than in the little honour paid to the wonderful genius of our Flaxman; who, had he been Herr Flackmann, or Herr Flaccus, might have obtained the praise he merits here, and receives abroad. We disregard the "prophet in his own country," and take the "*ignotum pro magnifico*" with complacent innocence; as we pronounce many manufactured articles imported from France to be far superior to our own, without dreaming of their being the re-imported productions of English artisans; and a vocalist might have less chance of admiration under the name of *Mrs. Green* than under that of *Signora Verde*.

The mixture of dissimilar substances and counterfeit imitations are to be avoided, equally with the unsuitable materials already mentioned. The union of bronze (and, above all, of bright brass) and wood is also objectionable; and even some of the much-prized tables of Florence, in *pietre dure*, imitating birds, flowers, and other natural objects, do not accord with right principles. These are objects of wonderful skill and costly magnificence, exciting a feeling of surprise at the execution rather than of admiration for the design.]

It is also a false principle to inlay *wooden* tables, or other pieces of furniture, with *stone*; and large masses of malachite let into the sides and top of a table are out of keeping there. We may tolerate and admire tables with the legs and every other part of stone; though they are better suited to an Italian than an English climate. A door made entirely of stone, or of wood inlaid with stone, is inadmissible. Large malachite doors may suit Russian caprice, and may impose on some easily captivated by display, but they are not consistent with good taste, and they convey an unpleasant idea of having to move a heavy mass whenever you wish to go in or out of the room, with the fear of some accident if carelessly opened or shut; or you may perhaps know that it only after all has a veneered surface, and that it is a specious imposition. Those who delight in the employment of showy or costly materials, in places ill-suited to them, mistake the splendid for the beautiful, and barbaric richness for elegance and taste.

[The same may be said of the rich cabinets inlaid with brilliant stones and costly jewels, where the artist seems to have sought to make splendid what he failed to make beautiful; and where the tortured outlines, the twists, scroll-formed mouldings, and distorted frame-work, which usually constitute

(8.)



a conspicuous part of them, proclaim the absence of all feeling for elegance and purity of design; and if a higher style of

(9.)



work is attempted, by the substitution of human figures for the legs, it falls as far short of nature and of art as the sculptures of the South Sea islanders. Such pieces of furniture excited the general admiration of their time; though a clumsy superstructure, on slender deformed legs, might call to mind the union of a corpulent body and emaciated limbs.] Nor is the comparison to works of the South Sea islanders a very exaggerated one; and some are so far removed from the beautiful and from the true principles of design, that it is now and then difficult to decide on the score of ugliness between a mediæval and a Maori-devil wood carving; and what is worse, they sometimes affect to pass off as works of taste.

30. [Again, a statue or temple, made of glass, is inconsistent and objectionable; and even a vase, originally executed in stone, and designed for that material, rarely bears the same character when copied exactly in metal, pottery, or other substance; and form, treatment and design must often vary according to these conditions. False imitations are mean: a cast-iron vase can only find an excuse in its durability for standing where a fictile one would not be safe; and a painted counterfeit has the sad pretensions of a rouged face. Nor can a pretended bronze statue of painted gypsum find a good excuse in cheapness; however we may allow it to the common, unpretending, white cast. Again, the glass body of a vase, with a metal handle, foot, or border, besides inconsistency, conveys a disagreeable feeling of insecurity in its use, from the greater and less durability of the two materials; and you fear lest some accident should leave the handle alone

in your grasp. A want of skill in the maker is also implied by the completion of his work in a different substance.

Many a glass or porcelain vase might remain without handles if the maker did not apply in his embarrassment to a friend in another trade; and as the good-natured smith has come to the rescue on one occasion, he is naturally appealed to on another. A glass, therefore, having accidentally come out as a long cup (*fig. 1*), without a foot to stand upon, the smith is again solicited to supply the deficient member; and lest any superior invention should contrast too strongly with the poverty of the original cup, the metal stand humbly

(10.)



Fig. 1.



Fig. 2.



Fig. 3.

imitates its companion, and finds its own security in a mass of nondescript groundwork, or imaginary vegetation (*fig. 2*). It will be fortunate too if its deformity is not increased by the contrast of metals of two different colours besides that of metal and porcelain in the flower, as so often seen in fanciful candlesticks, and other objects supposed to be ornamental (*fig. 3*).] Nor can we admit the excuse that the lower part represents the calyx of a flower. There is no reason that a cup, a work of art, *should* imitate any natural object. A flower performing an office not belonging to it is out of place: and when composed of two *different substances*, it is still more objectionable.

31. [But mixture of materials is not always resorted to in order to escape from a dilemma: it is frequently thought to be an improvement, and a sign of taste; and a brass, gilt, or silver, snake is coiled round the glass bottle for the double purpose of ornament and support (*fig. 4*). Sometimes, however, the dependence on metal being scorned, the fashionable reptile is of the same material, and a snake of opaque blue

(11.)



Fig. 5.



Fig. 4.



Fig. 6.



Fig. 7.



Fig. 8.

glass winds round the transparent beaker (*fig. 5*). This may remove one objection, but still leaves that of poverty of design; as when a glass imitates a pineapple, which, too, is generally found to borrow the foot of a tumbler to adapt it for use (*fig. 6*).

Still more objectionable are the combination of two different ideas and two incompatible natures to form a design; and the union "of the ugly fish and the beautiful woman," "the dolphin in the wood and the boar in the sea," denounced by Horace, are not more inconsistent than many of the anomalies produced daily by our *constructors* of designs. In one a man sits on a truncated column, with the branches of a candlestick growing luxuriantly from his head, while he plays a lyre in the character of Orpheus (*fig. 7*): in another a stork performs the unbirdly office of holding a light, or a cornucopia, in his beak for the same purpose, as if to add another inconsistency, and to show how little one part has any connection with the rest (*fig. 8*). These faults are frequently made worse by the same use of two different substances already noticed;] and the

impression is given that the whole has been made up of the remnants of several different kinds of objects fastened together, without any claim to companionship. It is not however to be understood, that nothing should be composed of two different substances; this would condemn mirrors with frames, and wooden chairs or couches covered with stuffs, and many other objects where two or more materials are justifiable, and often necessary. It is the *composition* of a design, not the *setting* made of a different substance, that is to be condemned; and there will necessarily be some few exceptions even to this, as to every other rule. Nor is it inadmissible to represent a man, or a woman, supporting a candlestick, or other object, provided it be really held by the hand, not growing from the head, of the figure; and every one will agree in admiring that most graceful one by M. Angelo at the tomb of San Domenico, in Bologna.

[Even in copying from good designs, and in the selection of others of uncertain merit, the feelings and proportions of the former, and the excellence or the defects of the latter, are not always understood; and we often see blunders such as these, where the basin is altered into a size too small for the ewer

(12.)



Fig. 9.



Fig. 10.



Fig. 11.

(fig. 9); and the spout of the classical *prochoüs* is immoderately thrust up (fig. 10), while another is spoilt by the lip being abruptly cut off (fig. 11).

32. Arts of *design* have a totally different office, and are guided by very different principles from arts of *imitation*. The former must be inventive, and independent of any *direct*

copy from nature, of which the *idea* alone should be taken; and this is the more to be urged at the present moment, as some still maintain that natural objects should be chiefly selected for decorative art, and that workmen should be furnished with casts from real leaves, &c. in order that they may *imitate* them in architectural mouldings and ornamental work,—an error, as I have already shown, not committed by the Greeks and others most remarkable for good taste.

This ornamental work is of course distinct from subjects adapted to the higher branches of sculpture and bas-relief,] and the remark applies to what is mere ornamentation. It is even better that the figures of animals, when merely ornamental accessories of architecture, and not forming part of a bas-relief, nor intended to represent a reality, should have a conventional form; and the quaint lions we admire in mediæval churches supporting columns, as in other un-leonine occupations, would be intolerable if they exactly represented real life. But the human figure should not be degraded by conventionalism, except in arabesques. It should be as true to the reality as high art can make it, even when employed in ornamentation. Nowhere does the inferiority of mouldings directly imitating natural objects, compared to conventional ones, appear more evidently than when they are placed near to sculptures of human figures; and what should we think of a metope of the Parthenon, or any Greek sculpture surrounded by an imitation of real flowers? The festoons of fruit and flowers in Renaissance buildings are only an exaggerated application of this false principle; and a similar meretricious taste induced some Dutch, and other, artists, to paint a wreath round landscapes and portraits. Among the many reasons why natural objects ought not to be preferred for ornamentation, one important one is, that a building is a work of art, and is not copied from nature. The parts of it are also conventional, and one

of those parts is the ornamentation. In a building we do not look for copies of natural objects; they are opposed to the character of so artificial a creation; and it is as inconsistent to represent real plants climbing up its walls, as to make columns in the form of trees. We only excuse these errors in an Egyptian temple, as we there and there only excuse a capital composed of one or four human heads. Flowers have no connection with, or relationship to, a building; and the attention being arrested by so many representations of real objects (for, however unintentionally, it is always disposed to inquire whether the resemblance is successful), becomes diverted from that more important consideration,—the effect of the building, of which they are merely ornamental accessories.

It is true that statues are introduced in buildings, both internally and externally, and they are real representations of natural objects; but they are not on a par with mere ornamentation, and though subservient to the general effect, with which they should never interfere, they are not degraded to the level of a mere moulding, or a pattern. We have statues, pictures, and frescoes in our houses and public buildings; but they are not mere ornaments, like mouldings, or the decorative parts of architecture; they are admired for their own merits. But this is not the case with ornamental details, which depend for the approbation they obtain on the office they fulfil in the building, and are inseparable from the purpose for which they are placed there.

Again, if we imitate the exact form, we must copy with equal fidelity the particular hue of the plant; and as the colours we select in decorating a building are conventional, and depend upon their position, it must happen that the colour of the plant will not always be the proper one; while the conventional rose, or other flower, may assume whatever hue is required for the harmony of the surrounding objects. We cannot have here a red, there a blue, or a golden rose,

if copied from the real flower. This may accord in form, not in colour, with the position required; and, besides, the disproportionate quantity of green would be fatal to the harmony of the design, and would at once introduce that very fault,—a redundancy of green, which offends so much in the works of a debased age. For these reasons, copies of real plants are open to objection. They do not however apply equally to human figures, as their colours can be varied by the more arbitrary hues of dress; though I do not by this mean to advocate the use of human figures for mere ornamentation. Again, there is more play of light and shade, and greater effect to be obtained by the conventional, than by the natural, flower; and the tracery of capitals and idealised foliage of the 1200 are far more pleasing than the most careful copies of real flowers, which gained ground in the Decorated style, and became rampant amidst the overwrought productions of the Renaissance. The most varied and the most beautiful specimens of ornament, which are those of the ancient Greek, the Byzantine, the Saracenic, the Norman, and the early Pointed, architecture, were conventional, not direct, copies from nature; and it is gratifying to find my opinion accord with that of so competent an authority as Mr. Wornum, who says, “in nearly all designs of this kind, applied to useful purposes, you frustrate the very principle of nature, upon which you found your theory, when you represent a natural form in a natural manner, and yet apply it to uses with which it has, in nature, no affinity whatever.” . . . “The details of all great styles are largely derived from nature, but, for the most part, conventionally treated; and theory and experience seem to show that this is the true system.” (“Analysis of Ornament,” pp. 10, 15.) I am also glad to be supported in this view by the valuable opinion of Mr. Owen Jones, who observes, “that, in all the best periods of art, all ornament was rather based upon an observation of the principles which regulate the arrangements of form in nature than

on an attempt to imitate the absolute forms of those works : and that, whenever this limit was exceeded in any art, it was one of the strongest symptoms of decline — *true art consisting in idealising, and not copying, the forms of nature.*”*

33. [But while insisting on the false principles of direct imitation for architectural designs, I admit of certain exceptions to this as to every rule ; deviations from which must depend on the discrimination of a talented artist. Thus the rope moulding, so admired on the tower of Belem and other buildings, and a mixture of natural objects in certain kinds of mural decoration (as on walls and ceilings of Italian and Pompeian rooms), are allowable, provided they are subservient to—and the accessories, not the staple of—the general ornamentation.]

Indeed, in my objection to the direct imitation of natural objects, as foliage and flowers, for architecture, I do not include the imitation of their *general spirit and character*; and though the exact resemblance should not be attempted, the general principles of nature may be followed, and convention of foliage be *based* on the study of natural plants. The rose, and the bell, or the cruciform-shaped, flower, the ivy, the vine, and many others, may be conveniently treated without losing their peculiar character ; like the honeysuckle, the acanthus, and others, in Greek ornament ; and the oak and the maple, the trefoil, and the strawberry leaf, may be kept distinct without being exact copies of nature. I therefore readily acknowledge the advantage to be derived from a *study* of natural productions for ornamental flowers and foliage ; and it is certainly important that students should be imbued with a feeling for their beauties, a thorough knowledge of their elementary forms, and a comprehension of the true principle of treating them conventionally. They should

* See other excellent remarks in his paper on the “ Principles of Ornament,” read at the Royal Institution of British Architects, Dec. 15, 1856, p. 28.

know how the conventional is to be derived, how varied, from the natural; and when this is well understood it will be easy for them to introduce variations of conventional foliage without depending solely on oft-repeated designs, or the commonplace imitation of natural flowers. It was the hackneyed repetition of old and ill understood types which was so injurious to architectural ornamentation in the latter periods of the Roman Empire, when a continual departure from the original had debased the acanthus of the Corinthian capital, and other forms, so as to leave in them little resemblance either to the original foliage, or the conventional substitute; and a thorough knowledge of the principles on which ornament is formed is necessary to prevent the common error of introducing it without a reason, and in some position to which it is unsuited.

The choice of an appropriate ornament should always be matter of primary consideration in architecture, as in every decorative art; and we should have no melange of the pinnacle and the tea-urn, as an ornament on the summit of a balustrade before the roof of a house; no huge stone bullets poised on a gate-post; no vases for chimney-pots; and no mock trophies in stone, or plaster, commemorating no triumph, but merely hiding a blank wall. Nor should any one suppose that the adoption of a caprice is to be sanctioned by antiquity; and if the Etruscans placed the heads of horses, as well as of men, over a gateway, as at Perugia, or if the beaks of ships sprouting out of a column were thought worthy of being a Roman monument, we should avoid such caprices as carefully as any of modern times.

34. [A glaring inappropriateness of subjects to particular materials and to particular places is observable in the silver ornaments of our dinner tables and their plateaus. Here, in our massive and costly centres, and other pieces of decorative plate, instead of figures gracefully grouped to form a

subject worthy of the material, or some composition showing a feeling for ideal beauty, are the horses of Mamelukes and knights, palm-trees, dogs, or other imitations of commonplace objects from real life, proclaiming the usual want of invention, and being thoroughly unmeaning and out of place. As no effort of genius led to the design, so no idea of taste is connected with them; they are more or less like the reality, but suggest no talent beyond the skill of the copyist and of the workman; and as the "*faber incertus*" is guided by chance in his selection from the menagerie, a horse may come forth, or an elephant, according to his momentary caprice. Reason, taste, and ideal beauty have no part in such a selection; and where a more extended work is required, a number of parts are generally put together to complete the required dimensions; without combination, or a "motive."]

There are, however, cases in which animals may constitute its chief features; when, for instance, a cup has reference to the turf, to field sports, or some other subject connected with them; when it will claim the merit of being consistent, and suited to the occasion. [Again, in those centre-pieces of plate, when an attempt is made to introduce the figures of men, they are frequently of various sizes, and characters, in several distinct stages, totally unconnected with any *general design*; and when classical drapery is imitated, it is not the figure wearing it, but the drapery, that is designed, which too is thrown by a gale of wind into fluttering folds, and has all the mannerism and extravagance of the worst cinque-cento style. Or if an effort is made at composition, the fanciful is generally substituted for the ideal; and its deformity is increased by overwrought ornament and crowded details.] This custom of introducing human, or other figures, of various sizes, in the same composition, is generally objectionable, whether in silver or in stone; and not less so are groups of men in one part, and birds or animals in another; the men half, the birds

double, life size. Nor are these confined to the sides or the foot of a stone Maltese vase, but are met with in works of far higher pretensions.

35. [The putting together of different objects to form a design is a common fault; and we may see a chandelier,



composed of a concatenation of vases, lyres, and other things; the whole attached to, or separated from the ceiling by a misplaced eagle, a hand, or other object quite at variance with the rest.] A chandelier is, after all, only excusable for its utility in giving light, not easily obtained in the same quantity with equal convenience; but when, in addition to the general objection of cutting the room in half, it is frightful in form, it becomes intolerable. A vase, mounted on a pedestal, with

branches springing out of its mouth to form a candlestick, is another instance of inconsistency; generally made worse by



being of elongated proportion, and made both of metal and porcelain, combined with a profusion of gilding. Some too, who undertake to make designs, show their incapacity by repeating the same idea in every work they produce; and there is a similar want of real genius in those who cannot vary the same subject in painting,—so different from the fertility of invention that marks Raphael's varied treatment of the Madonna.

[To copy some utensil in order to make one for a totally different purpose, and in a different material, is another sign of poverty of invention; as when a porcelain bowl imitates the yellow colour



and the construction of a wooden tub, which is rendered still more objectionable if it affects to be bound with blue ribbons in lieu of hoops. False pretences are always bad, both in a

moral and artistic point of view. Of a similar kind is a bed-candlestick, made of two shells, with a branch of coral tortured into a handle; or a golden boot, with bootjack, intended to decorate a lady's writing table, and to perform the duty of

(16.)



Fig. 1.



Fig. 2.

a box of lucifers; and as Romans sinned in designing for a lamp a human sandalled foot of bronze, the same is adopted by us for some other equally irrelevant purpose. Thus *decipit exemplar vitiis imitabile*.] In like manner, an inkstand in the form of a boat, or a porcelain vase converted into a clock, are far from commendable; a suitable design should have been made for each; and the old fashioned case-clocks, which were not ashamed of their office, were far better than our modern whimsically travestied ones disguised under a false shape. But to represent a subject in bas-relief on a piece of furniture, or any ornamental object, whether of metal, stone, or wood, is perfectly consistent with good taste, even though that subject may not in any way have reference to its use. It is making one object serve for another of a totally different character that is objectionable; and the same applies to a mixture of designs, as when chairs and other pieces of furniture are half composed of scrolls, or of architectural details. Bronze vases, having stags' heads for handles, with wreaths of flowers festooned at the sides, are another kind of heterogeneous compound, showing an utter want of compatibility. It is a union of parts quite at variance with each other. But such-like anomalies abound.

[Nor are we alone in this inconsistency. The combination of incongruous objects is not wanting in France. Thus a

clock is composed of unmeaning elements, often with figures equally at variance with the idea, and with the dimensions of a dial-plate; or it takes the form of a chariot wheel, or a sun-flower, for no other reason than because they suit its shape.] And yet there are many appropriate models for clocks, such as were common in France and Germany after the Renaissance, some simple, others more highly ornamented, having the great merit of appearing to be intended for the purpose for which they were made. Such is that made at Augsburg in the middle of the 1500 (given by Labarte, p. 378, fig. 163), and now in the South Kensington Museum; which, though it offends against good taste in the introduction of the horses on the summit and base, is pleasing in its form and general character. [Lamps and other articles of use, are similarly composed; and in France the love of decoration too often overbalances what is necessary or useful; so that splendid ornaments are frequently contrasted with a deficiency of the most common requisites in the unseen portions of a house.

This was also the case in the houses of ancient Rome; and in the same apartments where "gold and ivory shone forth," where the external decoration that caught the eye was splendid and costly, objects not intended to be seen were common and unfinished. It must, however, be admitted that Greek and Etruscan taste had introduced into Rome a prevalence of good form in ordinary utensils; and the saucepan and the strainer, the terra-cotta vase and the lamp, were as remarkable for their elegance as for their finish; and it would be difficult to find among them the uncouth shapes of our wine-bottles, or of the usual utensils in our houses. But it was to others more polished than themselves that the Romans were indebted for their selection of good works; and as taste was acquired, not natural to them, they sought them as a luxury. Greece, therefore, was plundered in order that

Romans might gratify a pride rather than a pleasure in their possession. Indeed, they were so far from the real appreciation of them, that they spoilt what they borrowed whenever they attempted any change of their own, as Roman architecture sadly demonstrates; and though Horace affects to say they painted and danced more skilfully than the Greeks, they were always deficient in art. Their calling was, as they boasted, conquest; and Virgil has given their sentiments in these well-known lines:—

“Tu regere imperio populos, Romane, memento :
Hæ tibi erunt artes ; pacisque imponere morem,
Parcere subjectis, et debellare superbos:”

the last of which inculcates the most odious doctrine of a savage conqueror, that no mercy was to be shown to a people who dared to defend their liberty.

36. The Etruscans, on the other hand, appreciated the arts they had derived from Greece; and whether or no an early Pelasgic relationship may have contributed towards their fondness for works of art, which was increased by an influx of Greek settlers at a later period, they became the zealous encouragers of Greek talent, and often its successful imitators. And this, with the pervading Greek element in several parts of Italy, may well account for the taste inherited by the Italians. For though a blank period intervened, taste was *inherited* by them; nor did they imitate the antique without having a capacity for feeling its intention; and while they have surpassed all others in copying from classical models, they have also given to painting a grace of design, and a grandeur of conception, to which no others have attained, and which we may presume was never surpassed, if equalled, in Greece.

37. But it is a mistake to suppose that Greek legends alone offer subjects for high art: the history of no country

is deficient in them; and many scenes from a Dante, a Milton, a Shakspeare, a Spenser, or other poets, and, above all, from the Bible and Testament, are far superior to any of a classical age. Christian story, as I have already observed (p. 200), abounds in feelings of a far more exquisite and exalted kind; and it is to be regretted that mediæval sculpture was interfered with by the imitation of Pagan ideas. It is the fault of modern days that the antique is too slavishly copied; and that subjects for which we can have no real feeling are forced upon us, to the discouragement of efforts of independent genius. An ideal figure of youthful beauty must be a nymph; exquisite form in man or woman must be confined to a heathen deity; the emblems of death must be Pagan; and that most graceful conception, the angel, must give place to some ancient one, with which we have no kind of sympathy. Natural talent and invention are thus cramped; and the "servile herd of imitators excite our anger and our ridicule," by an exclusive and affected admiration of some conventional type totally unconnected with their own feelings, or habits of thought.] We should be surprised to find a bas-relief in Greece, representing the legendary history of Osiris, or the victories of an Egyptian Remeses; and still more to discover in Egypt a record of the triumph of the Israelites at the Red Sea.

Good forms and good patterns may properly be adopted from the works of bygone artists, as hints may be taken from Greek, Moorish, or other styles; but then the imitation should be made with judgment; and nothing is more inconsistent than a copy (generally a caricature) of Arabic sentences, or Egyptian hieroglyphics; which, appropriate as ornaments when used by those to whom they conveyed some idea, are quite out of place as an English decoration.

[It is well to contemplate "day and night" the merits of "Greek models," and to comprehend the real sentiments which

guided their talented authors; but this differs widely from mere imitation, which, after all, only produces an inferior copy, and depends on the eye, without calling forth any efforts of the mind. What, indeed, can be more ridiculous than representing our kings and conquerors in the garb of ancient heroes? It only finds a parallel in the Greek temples represented by old masters in scriptural subjects, with the men in mediæval armour; or in that absurd custom (unheeded at the time) of dressing our actors, when in the characters of Cæsar, and other personages of a Roman play, in European costume; which we only laugh at now in the "Comic Latin Grammar." We should study their habits for historical paintings; and the insight we have obtained into Oriental manners, costumes, and scenery, as well as architecture, is of the highest importance to modern artists in the representation of scriptural subjects, and should by no means be neglected.]

38. If it is ridiculous for us to allow the imagination to wander among the mythological fables, or the glories, of Greece and Rome, in preference to subjects connected with our own religion, history, and poetry, it is equally so to adopt an old or a conventional mode of representing real objects; and an ancient horse copied for a modern equestrian statue is equally an anomaly with a completely classical costume for the rider.

Again, in imitating the architecture of an early style, it is a glaring impropriety to adopt what are its imperfections. There is no reason why our statues should be made unnatural, or ill proportioned, because those who erected the original building were incapable of executing good sculpture; and the mediæval character of the copy may be as well maintained though grace be given to its sculptured figures. Had the old sculptor been able, he would have done so himself: why then imitate an imperfection? for at the same period when he was showing his incapacity for high art, some buildings in Italy and in France were receiving sculptures of a higher order;

and it was not always the age, but the builders, in many instances, that caused the faulty character of the details. At all events, to copy bad figures in buildings or in furniture, because the limited progress of art prevented their being correctly represented at any particular period, is a fault. The human figure should always be of the highest order of sculpture. A grotesque being, or the union of a man's head with an animal's body, or a human figure connected with foliage, is a distinct condition; it ceases to be a man; and it is then subject to the ordinary treatment of ornamental patterns. Whether good taste should sanction a human figure terminating in the leaves and stems of plants, or the heads and tails of animals sprouting with the convolved foliage of what has been miscalled *arabesque* ornament, is a separate question; but a certain license may be allowed to fancy ornament.

39. The choice of subjects too from modern sources may be equally objectionable; and when these are selected from nature, care should be taken that things unworthy of being copied, and objects ill-suited to art, be avoided; lest admiration for commonplace realities of the day should encourage the same false taste which once allowed porcelain figures of clowns, shepherdesses, love-making minstrels, and other vulgar conceits, to usurp the place of subjects fit for sculpture. These may come under the denomination of works of *caprice*; but are as distinct from works of *art* as is another class, which may be called works of *ingenuity*, such as the ships, carriages, and intricate carvings in ivory and various materials, by which the Chinese excite our wonder. They may deserve praise in their own sphere, but should not affect a place beyond it. The imitation of a modern object, and the revival, or still more the *imaginary* reproduction, of an ancient one, without inquiring whether it is beautiful or consistent, are senseless whims; and some of the grotesque

inconvenient things which encumber our rooms are the result of this want of judgment.

Here a pair of tongs, tortured to adapt itself to a supposed mediæval form, is found to be incapable of taking up a coal, or a log of wood. There a table, a seat, or some other piece of furniture trips you up by the unexpected projection of an awkward protuberance at the foot of its distorted leg; and many a carved wooden bedstead is so porcupined with spikes and sharp knobs, that you almost fear to approach it, and and connect with it an idea of pain rather than of repose.

Admiration for the old should not blind us to the bad it may have; but still we may make a house unite the advantages of modern improvements with the picturesqueness of an older style. Is there any reason why we should exclude large panes of white glass from mullioned windows, denying ourselves much light and a clear view, merely because our ancestors could only obtain diminutive pieces of it? Would they have used these had they possessed our larger panes? and even if so, is this a reason for our imitating an inconvenience, which has neither beauty nor architectural necessity to recommend it? On the other hand to paint, or whitewash, old paneling, or other carved wood-work (as if the plague had been in the house) is as gross a barbarism as substituting sash for mullioned windows in a castle. That too which may be tolerated under certain conditions may be objectionable under others; and the flat-relief, which is so effective in the conventional style of Egyptian sculpture, would in a modern work of art be bald and poor, and give to the figures the appearance of being cut out in card, and pasted on the surface of the stone. By flat-relief I do not of course mean ordinary bas-relief (such as the Panathenaic procession, to which it has been sometimes erroneously applied) but with a flat surface *parallel* to that of the background.

40. [There is often a tendency in persons, incapable of dis-

tinguishing between good and bad art, to censure at first sight what is presented to them, with a view to cover ignorance, and affect discrimination; and if anything can be discovered to excite ridicule, it is eagerly laid hold of to conceal the want of real criticism. This has been fully exemplified in the statue of George III., where the pigtail has served as a most useful scapegoat for ignorance; and the merits of the rider, placed so admirably in his saddle, the resemblance of a horse to a horse (both of them rare in equestrian statues) and the oneness of conception in the whole subject, are unperceived; and even the secondary recommendation it possesses, of not being placed too high above the eye, has been found fault with, merely because custom has sanctioned the mistake of sacrificing art to honour, or to caprice, by an over-elevated position. For it is an obvious error to place an equestrian statue at such a height that the soles of the rider's boots and the belly of the horse shall be presented to the spectator as its most conspicuous features; or (if looked at from a proper distance) that it shall cease to be distinctly seen. What, again, is more inconsistent than raising a statue on a column? where neither the art of the sculptor, nor the features of the hero, can be discovered; and no greater poverty of invention can be shown, than by extracting one member of a building, and depriving it of the office for which it was created, (of supporting an entablature,) in order that it may render the individual it exalts almost invisible; while "*stans pede in uno*," it might be the solitary remnant of a ruined temple.

This was a caprice welcomed by Roman bad taste, which also introduced the truncated column to support a bust, thus giving it another head instead of its own.] And though, as Pliny tells us (xxxiv. 6), the custom of placing statues on columns originated in Greece; though the figure of a deity, a sphinx, or some emblems are represented on a column in Greek paintings; and though mention is made of Greek

statues on columns, like the bronze one of Chrysippus noticed by Plutarch; (Stoic. Rep.) they offer no excuse for the inconsistency, and are instances of some of the errors occasionally committed by the Greeks. The Romans felt the want of a lofty vertical line as a contrast to the monotonous horizontal roofs of their houses and temples; but it was only incapacity to invent which led them to exaggerate the column to an unreasonable size for the purpose. The Egyptians felt the same want, but they invented the obelisk as a contrast to the long summit of their temple fronts *, and however imperfect their style of sculpture they did not make the obelisk the support of a figure, nor raise a statue on a pedestal fifty or a hundred feet from the ground. They erred in a fondness for colossal statues; which are only to be sanctioned on certain conditions. But it is a mistake to suppose that these were confined to Egypt, India, and some countries where barbaric taste prevailed. The Greeks had even larger colossi than those of a Thothmes, or a Remeses. Nor were they the offspring, as generally supposed, of "the decline of art," since it was at its height in Egypt and Greece when they were used there; the mythological idea of greatness which they were intended to convey was common to both countries, and the colossal statues of Jupiter and Minerva were the works of Phidias. It was at a time when Greek art was most flourishing, from the age of Phidias to Alexander, that some of the most noted colossal statues were made; and in the reign of Alexander it was proposed to cut Mount Athos into the largest figure ever designed in any age or country. The colossus of Rhodes too was higher than any Egyptian figure. If the Romans imitated them they were mere copyists, and being influenced by bad taste, they chose what was bad.

For however admirable was the taste of Greece, there were occasions in which it "slumbered;" and as the Greeks did

* See below, § 42, p. 244.

now and then deviate from its true principles, there is the greater necessity for our knowing *why* we copy them, and for avoiding the blind imitation of any work out of a mere respect for the name of its author. Who, indeed, would advocate the introduction of Doric triglyphs over Ionic columns? and yet the Greeks have left instances of this, as well as of a round-headed pediment terminated at each end by a scroll; and of vases in the form of human heads surmounted by small figures, such as we see in the tombs of Cumæ and Canosa. Nor are other examples wanting of their occasional oversight in such matters; and it was far from judicious in them to adopt the Caryatides, Telamones, and Hermes figures "from the Barbarian." It is not sufficient to find some ancient example; it must be one worthy of being imitated. We often hear this excuse for an anomaly — "*there is authority for it;*" but no authority can justify the imitation of what is bad; and any one who adopted a copy of the Duilian column as a naval monument would raise a memorial of his own want of taste.

As the human figure is necessarily the standard, by which we estimate the size of every object we behold, its dimensions should be our guide for those of the statue that represents it; and the colossus (or the statuette) has the effect of decreasing (or increasing) the apparent size of whatever is near it; though there are situations even in a building where a statue may be larger than life, when it does not interfere with the effect of surrounding objects, or when a particular position sanctions an increase of size. There are also cases where a colossal figure may be tolerated, and even produce a good effect; and that of the Saviour, in the mosaics or frescoes of Italian and other churches, surrounded by figures of smaller size, enjoys an importance as the principal object, without injuring the proportion of the building, and makes the whole subject grand and impressive; a good example of which is in the

dome of the Baptistery of Padua. In those cases when it is intended to give an impression of its own size, and does not deceive the eye, the colossal figure is allowable; and that of the Saviour on the ceiling of the apse of S. Paolo at Rome, like that of Monreale near Palermo, is impressive without interfering with the proportion of the building. The eye is aware of its size, and no longer makes it the standard; and there are besides other figures and objects which would correct the delusion, even if any were caused by it. But this is distinct from the notion that size, either in the figures, or in the dimensions of a picture, is necessary for grandeur; and a recourse to this expedient is generally a sign of inability to produce the effect without it. Size too may be obtained on the smallest scale by the relative proportions of surrounding objects; as importance may be given to any subject in paintings of moderate dimensions, quite as well as by covering enormous masses of canvas with colossal figures.

41. [Deficiency of taste, and a total misunderstanding of proper sentiment, are frequently shown in the treatment of funereal monuments. It is a mistake, and a disagreeable one, to represent the person thus honoured as a dead corpse: this can only convey a painful impression; and it is not his *body* which was honoured in life, but his virtues, his mind, and the various qualities of his *soul*. The body is now in its last resting-place—the grave; but should not be dragged out of it to present an unseemly sight to the spectators, and to be an improper subject for art; and, above all, no skeleton, skull, or bones, should disfigure the monument, by detailing the horrid *consequences* of death. Whatever representation is given should have reference to the character of the deceased when alive, or commemorate the affection of his friends, and their regret at his loss; and those sculptors were right who alluded to some act of his life; or with proper religious feeling introduced him in a posture of devotion, as in mediæval times.] The *portrait* of an individual placed over

his tomb would certainly be of a living, not of a dead man; and there is the same motive for representing his likeness in sculpture as in painting. And while mentioning tombs, I cannot but praise the feeling and refinement exhibited in those of our great sculptor Flaxman; nor can I omit to mention the elegant form of the Gothic canopied ones (especially those of the 1200) which we so often admire in Italy, and sometimes in this country; where the figure of the deceased lies on the stone coffin or sarcophagus, often with an angel of graceful form at his head and feet; the whole covered

(17.)



Fig. 1.

Fig. 2.

Fig. 3.

by a round, pointed, or cusped arch*, within a pediment; having richly coloured designs painted, or in mosaic, within the vaulted recess, and on the wall from which it projects.

Some of these sarcophagi are placed on brackets, and the columns themselves have the same kind of support. They all look well,—but I am rather disposed to prefer the columns resting on the ground,—*a support requiring a*

* I have seen a curious instance of an arch in the Great Oasis, in an early Christian tomb of Roman time, which is the first approach to the trefoil arch. Mummy cases long before were cut into this form; but here is an arch of that construction.

support being a paradox; and for those of greater pretensions good models are offered by the grand monuments of the Scaligeri, and the Norman kings of Sicily at Palermo, as by other tombs in some of our own and foreign churches.

How much better are the canopied tombs, or the simple figure lying on the lid of the sarcophagus, than our fanciful monuments, sometimes with ghastly skeletons; or with ponderous clouds in marble, forming part of the composition; sometimes with a background consisting of a slice of black marble, half pyramid half obelisk, adhering to the wall; and frequently overloaded with vases, *amorini*, wreaths, and Pagan emblems. These are unworthy of being called designs. Nor are we more fortunate in our adoption of an obelisk for a monument; whether it be a memento of the dead, or in commemoration of some event. We attach no idea to it; we do not even comprehend its real shape, its true proportions, or its use; we flatten and spoil its most beautiful part, the apex; and the selection of an obelisk for such purposes shows great want of taste, and poverty of invention. It is much on a par with the erection of a pagoda as an English monument; it is a borrowed form, badly chosen, and totally unmeaning.

42. Perhaps while speaking of obelisks I may be permitted to introduce some remarks I have had occasion to make on that subject. "It has been recommended that obelisks should be adopted in this country for ornamental purposes, and the fact of our possessing granite quarries of sufficient size to furnish obelisks larger even (if required) than any erected in Egypt, has been set forth to show that there is no objection to their use from the deficiency of proper materials. But it may be asked what idea we associate with an obelisk, and what is our plea for adopting it as a monument. We have no feeling, no association connected with it; the Egyptians *had* a reason for its invention and for its employment; and certainly, judging from the position and treatment of obelisks,

in modern as well as in ancient Rome, in France, and in England, it is evident that in Europe there has generally been a misconception of their use and intention. In Italy the point of its *pyramidion*, one of its most beautiful features, has been so overloaded with crosses, rays, and various conceits, as to be deprived of its proper effect, while the lower part of the obelisk has been disfigured by being perched upon an incongruous pedestal. Again, it has been generally put up in some open space as if it were an overgrown gnomon; and as its form has been spoilt by an unsuitable addition to its base and apex, so the choice of position has aided in its disfigurement. It is true we do not encumber the summit with the same monstrous conceits, yet we generally spoil it by depressing the apex, and by substituting for its graceful acute point a heavy obtuse one; showing how little we even care to copy correctly the ready-made model. So far from any Egyptian obelisk having that heavy feature, its triangular pyramidion is at least $1\frac{1}{2}$ in height to a base of 1*, which gives it that lightness for which it is justly admired. Thus in the obelisk at Heliopolis the height of the pyramidion is to its own base as $1\frac{1}{2}$ to 1, which (though in some the proportion of the height is still more) is the usual proportion of the perpendicular height to the length of the base of the pyramidion in obelisks erected, or represented, by the Egyptians. Our flat-pointed English obelisk would never have obtained the name of *obeliskos* from its resemblance to a '*spit*.'

"But, besides a frequent disregard for the proportion and beauty of the apex, we show the same misappreciation of the purpose and character of an obelisk as the Italians and the French, by placing it alone in an open space, as if it were a maypole, or admirable only for its height. The Egyptians employed it as a contrast to the long level line of the cornice of their temples; and two obelisks were placed for this pur-

* This is a very pleasing proportion for many objects. The pyramidion lost a little in apparent height by the slope of its faces.

pose in front of the towers of their propylæa. They well understood the value of this vertical line to relieve, and contrast with, the long horizontal line of the building; by which means, what would have had a monotonous presented a pleasing effect; and they managed it more adroitly than the Romans, who, as I before observed*, merely took a column out of a building and, increasing it to an unreasonable size, placed it by itself for this purpose. We have not the same want of the vertical line; it abounds with us, and under much better conditions than in an Egyptian, or a Roman, city; we have, therefore, no object in adopting either the obelisk or the column to supply that want. Besides, to copy the obelisk, (with which we have no association of ideas,) as a monument, gives the impression of inability to compose a monumental design. It is the refuge of the destitute. No inventive genius, no effort of the mind, is required for its adoption; and it is precisely what any one devoid of originality would select:—a mere repetition of a well-known form, without any regard to its real use. A false principle is also involved in the transfer of an object to a purpose with which it has no connexion. It is bad enough when a chimney mimics an obelisk, instead of being what it really is; but then it has not the presumption of calling itself a monument, which requires a greater effort of the mind for its invention, and claims for itself a more dignified character.

“If men of talent intend to do themselves credit by designing monuments, displaying originality and some power of the mind, they must not be satisfied to copy an object adapted neither to our wants nor our ideas. An obelisk before an Egyptian temple is deserving of admiration because, being graceful in form, it fulfils the purpose for which it was intended. Its hieroglyphics also add to its beauty when well cut. These last, indeed, are an important feature in the obelisk. It appears heavy without them, and never looks

* See above, § 40.

well even in its proper place, before an Egyptian building, when unsculptured.* But I do not suppose that copiers of obelisks would advocate the addition of hieroglyphics to any at the present day. If then it is not consistent to preserve this one of its peculiar and pleasing features, how can it be consistent to adopt the obelisk itself—which is injured by the omission? And as it is inconsistent to adopt the hieroglyphics with which we have no association of ideas, it is inconsistent to copy the obelisk for the same reason. In short, I see no excuse for its adoption as a monument, except as an acknowledgment of our inability to compose a new design, and the necessity of having recourse to a ready-made model. And we cannot even copy this correctly.”

We may be, and we certainly are, improving; but we are not happy in our monumental compositions, though there are some of undoubted merit; and strangers find more to censure than to admire in those of Westminster Abbey and other places. Nor shall we give proofs of inventive genius by copying an obelisk, or a column; and the addition of a soldier, a lion, or an angel, at each corner, will not raise it to the rank of a good design.

43 [It is not only the genius for composition that is deficient in this country; there is also a very general want of perception and correctness of eye, so necessary for judging of form and proportion. But though accuracy of eye is so important, it is only *one* of many essentials for attaining to excellence in execution, and for appreciating beauty. The nice perception of the Chinese enables them to copy with surprising accuracy; but still they are deficient in a knowledge of form; and much has to be learnt before the merits of good design can be understood in decorative art. Still more requisite is it for the appreciation of the highest branches of painting; and as the ear may detect the least discord in sound, or an imperfection in time, without attain-

* But it was a mistake to sculpture the faces of the pyramidion.

ing to any knowledge of music, so the eye without instruction may remain for ever ignorant of the merit of true pictorial art. This can only be the result of study and well-directed experience; and no one ever was imbued with a real feeling for it until long and diligent attention had cultivated his natural taste.

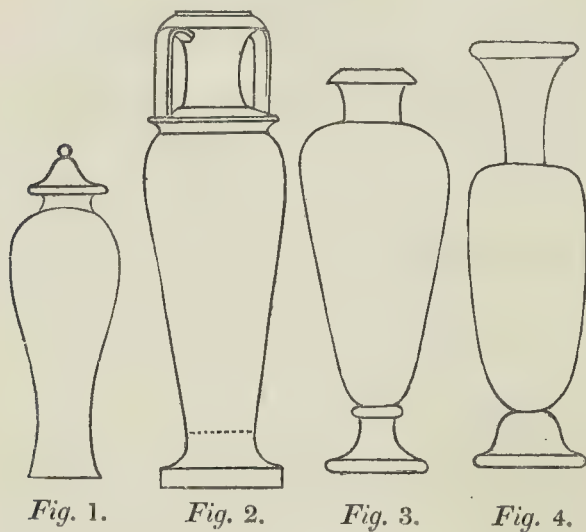
44. Indeed, the errors into which men of celebrity in their day have fallen, while pronouncing an opinion on paintings, afford a striking illustration of this fact; and it was not till lately that in England the general admiration extended far beyond a Guido, a Carlo Dolce, a Guercino, the Caracci, and some others of the Eclectic school; and the staple of our collections consisted of Dutch masters, who copied from nature, and not always those subjects most remarkable for refinement. Even now, the generality of those who visit a gallery are far more attracted by the compositions of *naturalisti* than by those which represent a more elevated sentiment; and scenes from common life are general favourites. Such subjects are easy of comprehension; they put before us what we see daily, and know to be truly represented; and it requires little effort of the mind or cultivation of the taste to feel their merit. The appreciation of ideal beauty, and of elevated sentiment, in the composition of a first-rate Italian master is a very different acquirement; and while we may rejoice to find that this is at length beginning to be acknowledged, and even to be considered a necessary accomplishment for all who pretend to judge of painting, it is only fair to admit that it is as yet seldom possessed, and the rare exception to the usual character of English taste. To the *general* public it is utterly unknown; and this is the less to be wondered at, since in a country like Spain, which has obtained eminence in sacred and historical composition, her first artists never attained that same perfection of elevated expression as the Italians; and the Madonnas even of Murillo, with all their sweetness, are

merely women. Nor will it be denied that the Beggar-boys of that master, and such like subjects, find far more admirers in this country than his sacred pictures.

It is not surprising that the uninstructed should begin by admiring what they can understand; and this shows the necessity of that tuition which may enable them to appreciate a higher class of art. The most refined nations began with the rudest designs, before they were capable of producing the nobler conceptions of a more advanced age. Improvement is the result of time and study; and perfection in the knowledge, as well as in the practice, of art can only be brought about by gradual steps.] The same tendency causes the majority of the people to feel an interest in specimens of natural history at a museum, in preference to works of art; and the largest crowd at the Great Exhibition of 1851 was collected about the stuffed animals, and the illustrated story of Renard-the-Fox.

45. [But, for the present, I wish particularly to direct attention to ornamental design and art-manufactures; and

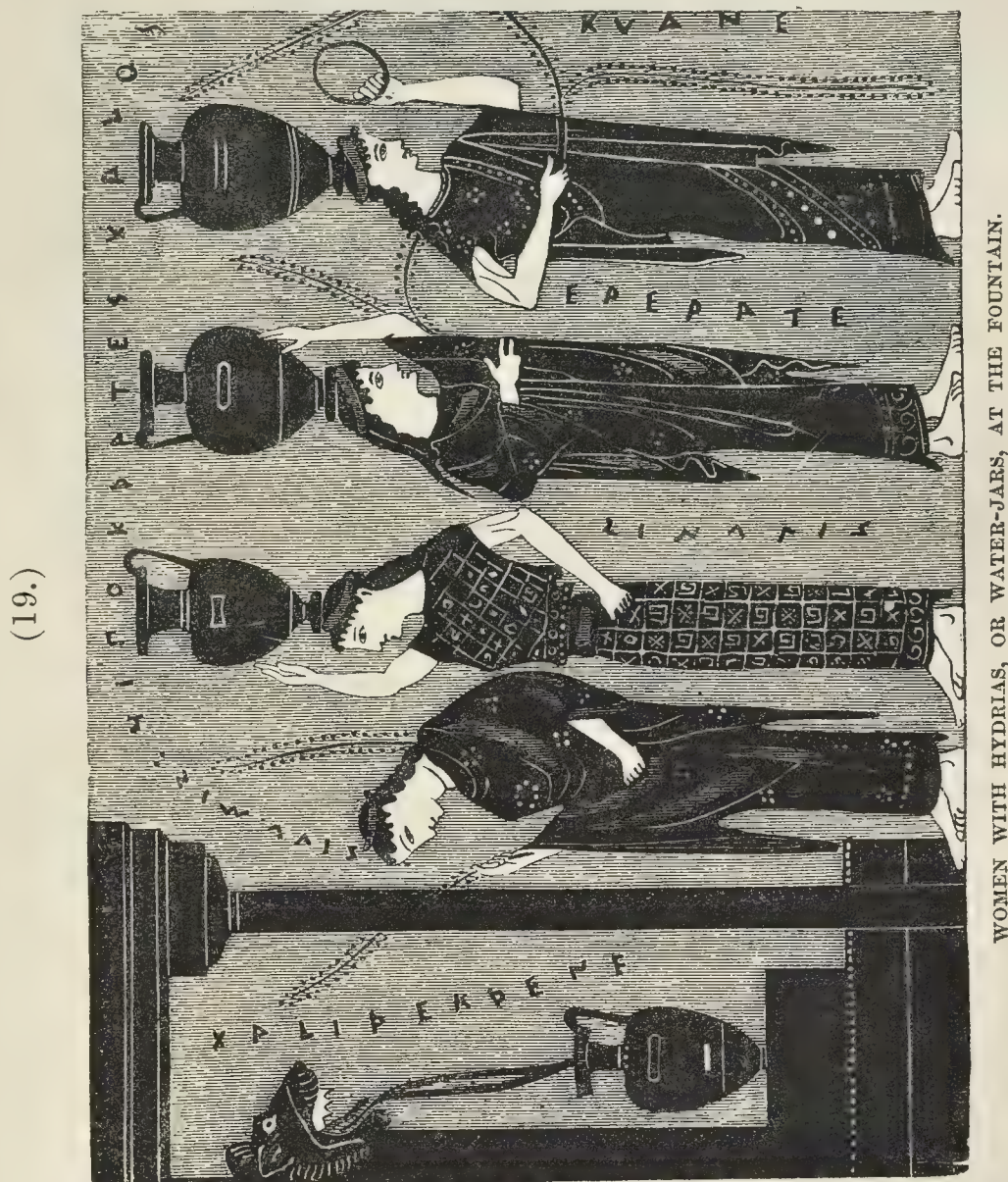
(18.)



following out the negative process, I shall introduce some faulty objects which are to be avoided; beginning with those that err chiefly in want of proportion, as in the four given in

the preceding woodcut (18), which are too lengthy for their breadth.]

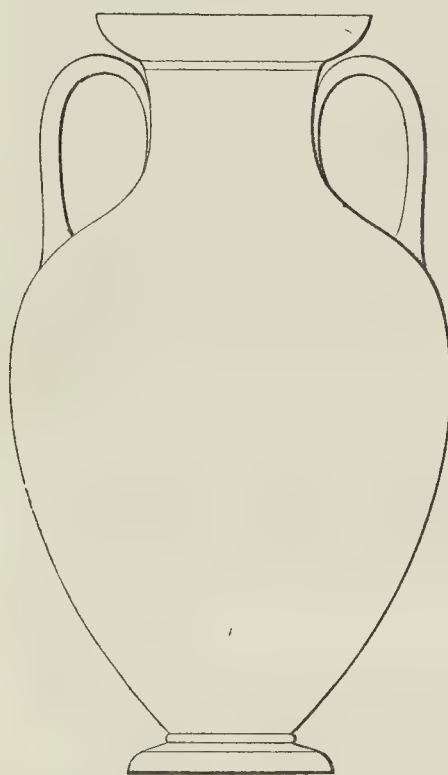
It may also be useful to compare them with some of the graceful Greek vases, and to see how disagreeable is their de-



formity, and how harmonious are the contours of the ordinary Greek *Hydria* (woodcut 19), the well-known *Olla* (20), the *Calpis* (21), the *Lecythus* (22), the *Ænochoë* (23), and other

vases of various kinds; to which may be added those of a more ornamental character, especially the Medicean, and some

(20.)



(21.)



others, as well as the elegant *cylices*, of the best Greek period. In the accompanying woodcuts (19 to 24) are some instances

(22.)



(23.)

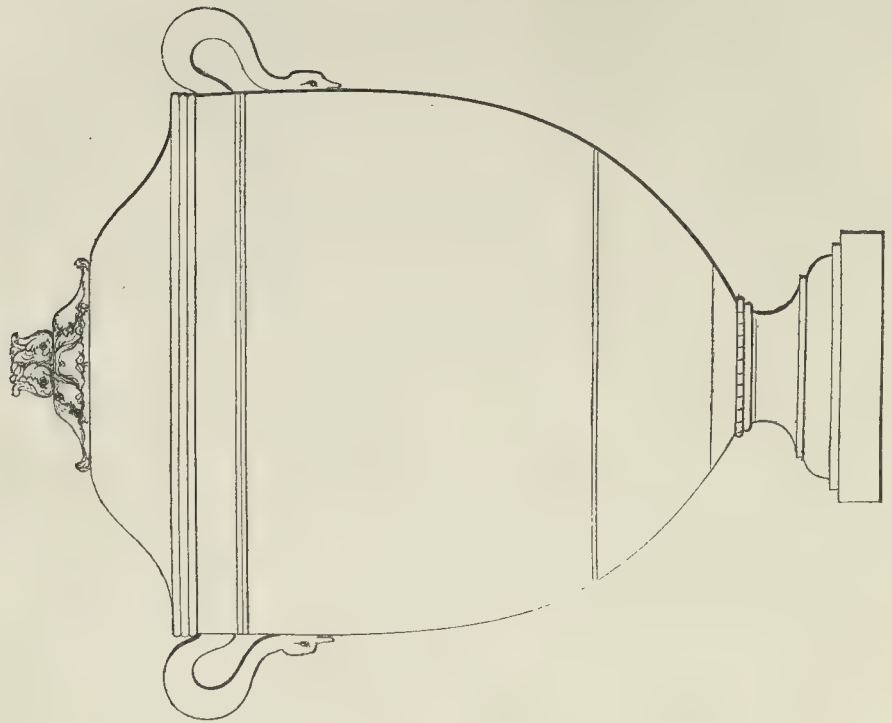
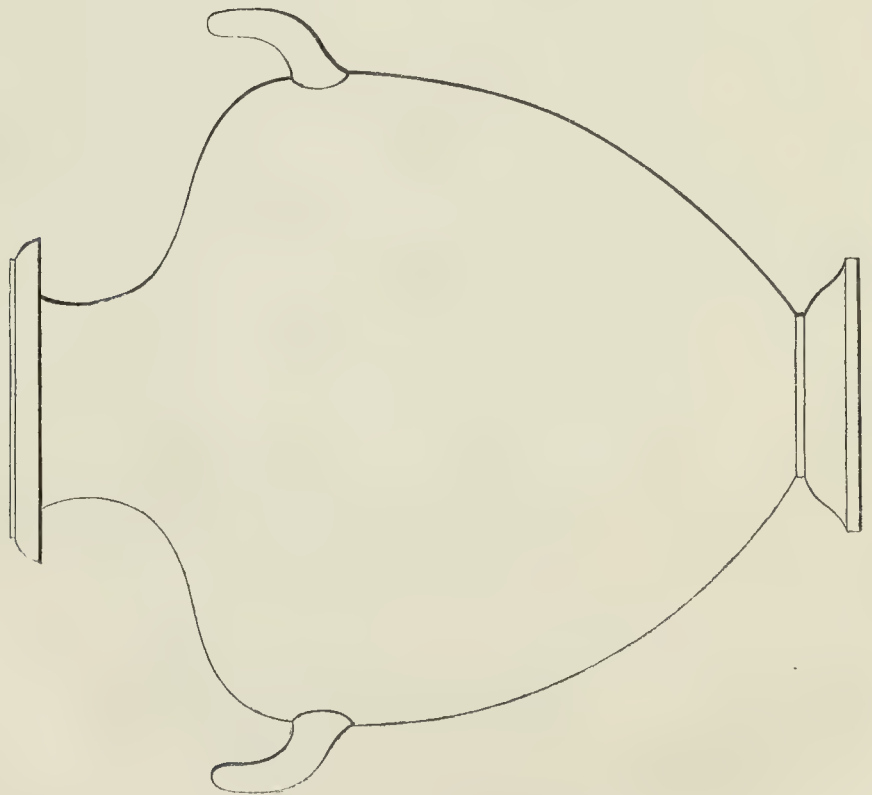


of Greek vases, which are deserving of commendation from their general form and proportion; and though, in *fig. 2*, of woodcut 24, the foot is heavy, and the handles are ob-

jectionable, both from their shape and from their assuming the form of snakes, its general contour is pleasing; and the others are specimens of good form. And such was the variety in Greek vases, even of the *same kind*, that in the *Olla*, or in the *Hydria*, alone, it would be easy to produce twenty specimens, all differing in some point from each other, and yet all perfectly correct and beautiful*:—a very important fact, which suffices to show how useless it is to lay down, or to expect, rules for those two important questions, form and proportion. If the eye is not the guide, no rule will take its place; no instructions could embrace that great variety; and if the makers of those vases had been hampered by the fetters of a rule they would never have produced them.

As combinations of the same colour may vary in the quantity of blue, red, or other hues, according to the required effect of a design, so may the forms of the same kind of vase, and yet be equally harmonious and beautiful; and it is the perception, not some fanciful scale, which is to be consulted in both cases. A want of this faculty has led to the numerous deformities daily exhibited and admired both in France and in this country; and the prices they command have unfortunately given them an importance they ought never to have obtained. By this means the whimsical, the misshapen, and the meretricious, have elicited praise instead of censure; the eyes of many have become reconciled to the bad till they no longer appreciate the good; and some of the costly specimens of Sèvres porcelain have done more injury to this particular branch of taste than the most ordinary productions of the humblest potter. It will therefore be pertinent to the present question to compare the graceful forms of the Greek vases here given with some of those of Sèvres and other modern manufacture; and any one not entirely destitute of correct perception will at once acknowledge the difference of their claims.

* See woodcut 19; and also the two forms of *figs* 8 and 9, woodcut 24.

*Fig. 2.**Fig. 1.*

(24.)

(24.)

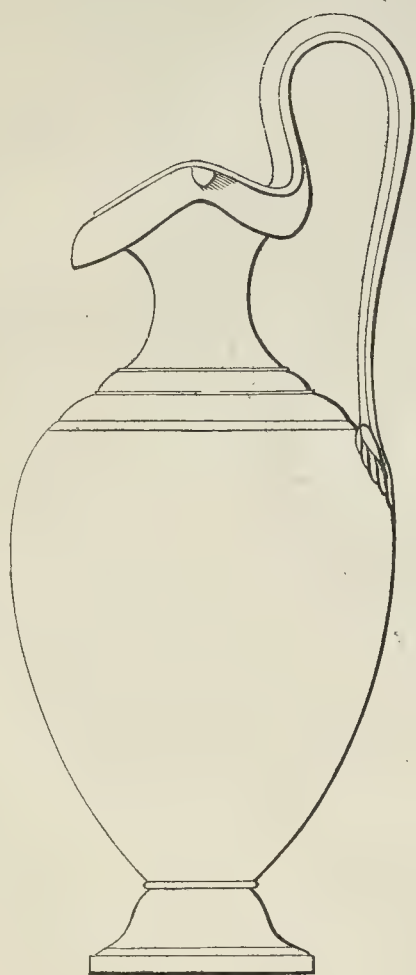


Fig. 3.

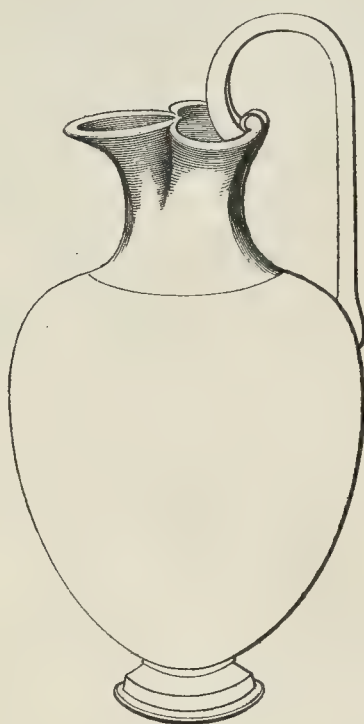


Fig. 4

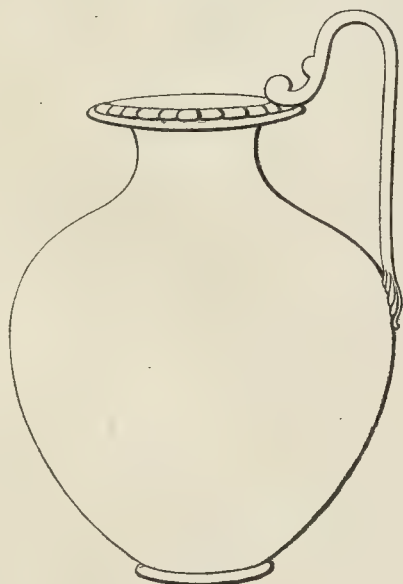


Fig 5.

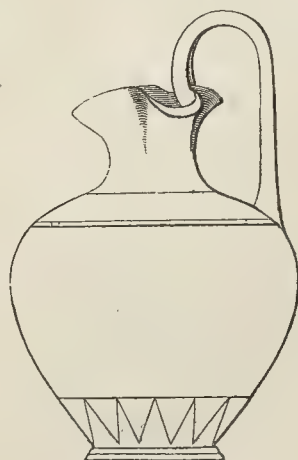
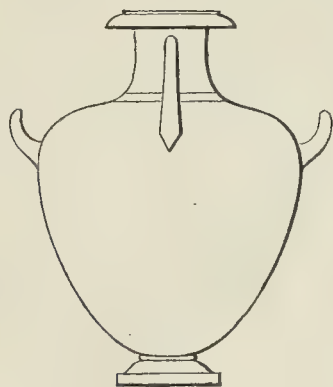


Fig. 6.

(24.)

*Fig. 7.**Fig. 8.**Fig. 9.**Fig. 10.**Fig. 11.*

[Some of the most intolerable in form are great favourites; and they receive increased admiration from the richness of their colour, and the evidence of the labour expended on their manufacture, though in reality these supposed merits only make their deformity the more lamentable. Such are examples given in the following woodcuts (25 to 34); some of which have the additional fault of uniting a metal cover and handles with a body of porcelain; and many a vase of Sèvres manufacture shows that richness of material is no voucher for excellence of taste.]

Their value arises from the difficulty of making them, or from the skill exercised in painting the subjects, most of which are out of place on a vase; and when an enormous sum is paid for them, which might command works of really good art, they are on a par with Dutch tulips, or some strange curiosities, whose price depends on their rarity and the caprice of fashion. So long as they are treated merely as curiosities, or hold a place in a cabinet,

(25.)

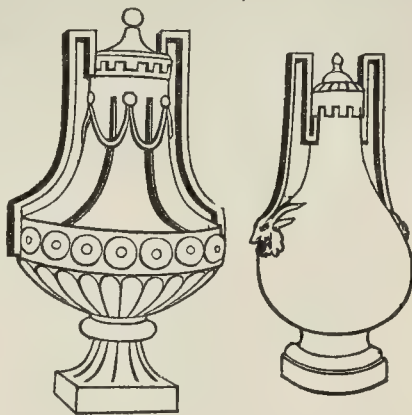


Fig. 1.

Fig. 2.

(26.)



Fig. 1.



Fig. 2.



Fig. 3.

a collection of these, as of the most whimsical pieces of old Venetian glass, or of curious china, is innocent and unobjectionable; but when they claim admiration as objects of real beauty and good design, their pretensions are not to be

tolerated; and they have the injurious effect of accustoming the eye to objectionable forms, and tend to the corruption of taste.

Heavy rotundity in the upper, and ill-suited narrowness in the lower, part of a vase, are glaring but common faults (27, *fig. 2*); [but when meretricious ornament is added, and that in bright metal, as gold or or-molu, the deformity is still more glaring; and a vase made of a shell bound in metal, with rampant dragons for handles, is a still worse instance of in-

(27.)



Fig. 1.



Fig. 2.

adaptability and bad taste (27, *fig. 1*). Sometimes a headless hybrid, between a bottle and a cup, reverses the extravagant breadth from the upper to the lower extremities; but whether placed on its head or on its foot, it offends equally against all

(28.)



Fig. 1.

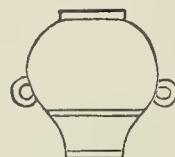


Fig. 2.

beauty of form; and I have seen one of these which courted additional censure for having its two ill-placed handles in the shape of elephants' heads. Nor will a whimsical character, or

elaborate finish, compensate for an absence of the true principles of design: nor because one is faulty in one way must another be perfect because it avoids the same defects; and a vase may from its form be deficient in grace, and at the same time depart still farther from it in its tasteless adjuncts. Nor will antique details reclaim what is faulty, still less when they are badly copied; and if masks for handles are an unpardonable

(29.)



(30.)



misapplication, they become doubly offensive when they caricature what they pretend to imitate. Arbitrary deformities too often shift their places with suitable caprice; and thus some

(31.)



Fig. 1.

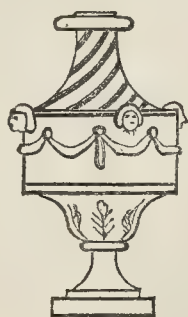


Fig. 2.

vases appear to borrow from a companion the cup they stand upon (*fig. 1*); while others take a neck from one, a body

from another, and a foot from a third, all of different characters; perhaps on the plea of variety (*fig. 2*).

Meretricious ornament, combined with richness of material, is one of the greatest enemies to good taste, because it may captivate by its pretensions, and even appear to assert a right to admiration, from the doubtful merit of being in the salons of the great. Many, therefore, of the worst forms in

(32.)



Fig. 1.



Figs. 2 and 3.

Sèvres china pass for beautiful, when they should be condemned as deformities, whether composed of porcelain and

(33.)



(34.)



rich with or-molu, or formed of the same material throughout; and we often find an idea taken from a jug of good

shape, utterly perverted by a change in its proportions, by the outline of the lip and handle being broken up, or by other capricious alterations. (Woodcut 34.)

46. Ignorance of proportion frequently spoils the most graceful vase, even when copied from the antique; some crude notion about "flowing lines" being invoked as a substitute for real taste; and thus the light form of a *cylix* is often made clumsy in order to accord with an ill-understood theory of excellence. In some instances too the handles are omitted, lest they should interfere with the favourite curve.

That lines should "flow" is perfectly true; but this is not a condition to be adopted everywhere without reason, or without considering the mode of suiting it to each particular case; and it must be understood before it can be properly applied. In tracery, as in a wall-paper, it is of great importance; as well as in carpets, and other decorative fittings, where spots and single salient objects that catch the eye are specially to be avoided; and the rule is good in many other cases, provided it be not abused.

47. When a vase is borrowed from two of different forms, it seldom combines the qualities of those it springs from, and is faulty in principle. The appearance of a union of two

(35.)



Fig. 1.



Fig. 2.



Fig. 3.

is displeasing, and some cups are even met with in Greek fictile ware which have too much the character of a *cylix* and a *poculum* put together (fig. 3). We should prefer the two distinct; and when a new form is required, it is better to give it a new character of its own than to compound it from different elements. And thus the *Cantharus* and the *Carchesion*

having handles which are suited to them (woodcut 36), and in proportion to their size, do not give the impression of being indebted to a smaller cup for little useless accessories (35, *fig. 3*).]

Capricious forms, when devoid of elegance, are all objectionable; and the Greek Rhyton, or drinking-cup, in the shape of a man's, or an animal's, head (woodcut 37), may

(36.)



(37.)

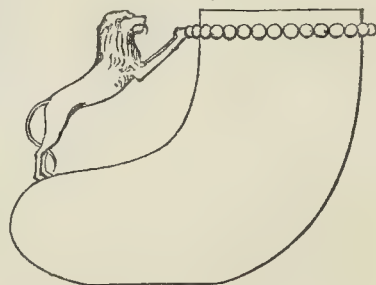


be looked upon as a curiosity, but is no more worthy of being imitated than the Greek *askos*, derived from the wine-skin (woodcut 38), from one of which in bronze, found at Pompeii, we have borrowed the form of a modern claret-jug, sometimes with the additional fault that the handle represents

(38.)



(39.)

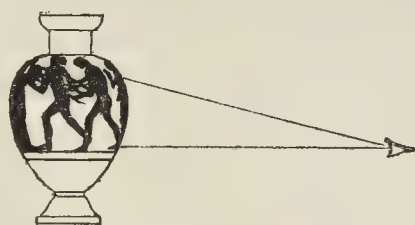
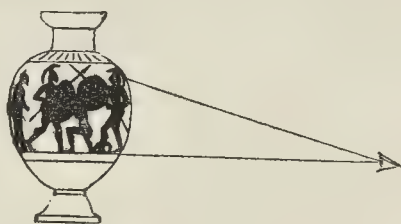


an animal. (Woodcut 39.) A vase should be designed as a vase, not copied from a natural object; and though some of the lotus-cups of the Egyptians may be tolerated as pretty conceits, they deserve no place among works of refined taste.

48. [In the introduction of figures upon vases a not uncommon fault is to place them in such a manner that part is concealed by the upper or lower curve of the surface; which

has a disagreeable effect. The fault is in making the figures too large, or in not confining them to the most level part. Thus, the eye, taking in only a portion, sees them without heads, or in a distorted position (woodcut 40, *fig. 1*), when, by extending the border lower down the upper part, and diminishing the

(40.)

*Fig. 1.**Fig. 2.*

size of the figures, they would appear entire upon the proper field (*fig. 2*). The same applies to figures on the inner or outer surface of a cylix, where they should only occupy the flat part of the centre, and leave a space between them and the rim on the outside, instead of following its curve with their distorted heads. (Woodcut 41.)

(41.)



49. The mixture of natural and conventional objects in the same design is another grievous fault; as in encaustic tiles, where a rectangular geometrical pattern is disfigured by being combined with an imitation of roses or other flowers; and a still greater abuse has introduced in tiles, paper, Tunbridge ware, and printed stuffs, not only flowers, but even the square stitches of Berlin worsted-work, with their staircase outlines.] It is not an uncommon practice in ornamental compositions, and even in architectural mouldings and tracery, to put together designs of a totally different kind, and quite unsuited to each other, frequently from the very

(42.)

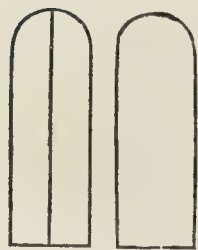


fallacious notion that being found to look well in one place, they must of necessity look equally well in another. This results from the common habit of putting together different parts to form a whole, instead of making the ornaments part of one general design. They should be introduced for a purpose, and not appear as if they were there by accident, without any relation to their neighbours. However varied, they should be analogous in their general character; and it may even be questioned, whether the feathered scroll ornaments at the Alhambra, so admirably suited to those of its patterns which are curvilinear, accord well with the purely geometrical and rectangular ones with which they are sometimes combined in that exquisite building.

To unite Greek with Chinese, or Saracenic, ornaments would be a glaring incongruity; but we sometimes see combinations almost as bad, depriving a design of that harmony of parts which is so necessary an element of the beautiful.

[In designs intended to cover floors, or walls, where a large surface is to be at once presented to the eye, several conditions are to be attended to; and what may look well in one place may become offensive in another. Thus, the size of patterns must depend upon the dimensions of the place where they are to be introduced; and a large pattern in a small chamber takes off from its size, and makes it appear still smaller: as do large compartments or panels, either in

(43.)



the ceilings or the walls. Lines, again, are poor and monotonous, if repeated over an extensive surface; striped curtains can only find an excuse when intended to give height to a low room;] and the effect of vertical lines for this purpose is readily perceived when one object so striped is placed near another having a plain surface, or barred with horizontal lines. Thus, when one of two adjacent windows is divided into two lights by

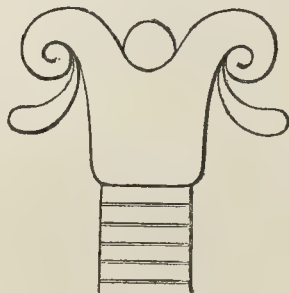
a mullion, it looks higher than a neighbour without it. For the same reason a short woman wears a dress with a striped, rather than a barred, pattern; the latter suiting a taller figure. [Cross lines and spots are offensive and fatigue the eye, and the imitation of architecture on a floor offends the sight as well as common sense.]

50. Patterns placed one above the other, to ornament a pilaster, or other upright member, are poor, and on a false principle. The space should be filled up with a design commencing at the base, and extending as a whole to the summit; which should spring from what may be called a root, at the lower part, especially if it bears any resemblance to foliage; and Mr. Ruskin is right in preferring capitals and cornices where the ornaments are "rooted in the lower part, and spring to the top." "This arrangement," he observes, "is essential to the expression of the supporting power. It is exactly opposed to the system of *running* cornices and *banded* capitals, in which the ornament flows along them horizontally, or is twisted round them, as the mouldings are in the Early English capital, and the foliage in many Decorated ones. Such cornices have arisen from a mistaken appliance of the running ornaments, which are proper to archivolts, jambs, &c. to the features which have definite functions of support." But, though inadmissible in cornices and capitals, a scroll pattern may sometimes run horizontally along a band of stone- or wood-work, of classical or of mediæval character.

(44.)



(45.)



The first idea of the upright position of these ornaments occurs in the Egyptian capital, where the flower-stalk of the shaft terminates in its natural head — the blossom or the bud; and the same

was adopted in Greece as "the Corinthian type." But the Greeks did not carry it out to the same extent as the Egyptians; and they even abandoned the principle altogether in their Ionic volute; which was originally the *upright* blossom of an Egyptian water-plant, terminating on the right and left in an involved edge. (*See also woodcut 49.*)

51. One great point to be observed is that [the ornamental decorations of every space should be so devised as to appear a complete design made for that very purpose, and not a fragment forced to fit it, as in our carpets and wall-papers, where the pattern, being cut through, looks as if the rest passed under the wall to the next room.] The effect is the same as if a cornice ran along the front and back wall of a room, and was absent from the sides; which last would therefore look as if they had been introduced as partitions at a later time. [The difficulty in the carpet, or the wall-paper, is easily overcome by having a border so adapted to it as to correspond with the pattern along the whole outer edge, and thus complete the design. Moreover a wall-paper should not affect to represent Gothic tracery, parts of buildings, or battles; and a *Chasse de Fontainebleau*, or similar

(46.)



scenes, as on the walls of a French *café*, are equally vulgar and tasteless. The same may be said of animals, ships, buildings, or landscapes on drapery and furniture, or on trays and similar articles of use; and mixed designs, such as flowers, with scroll-work, or with architectural details, offend against true principles of taste, and are rendered still more monstrous when the flowers are above life size.]

Exaggerated fondness for flowers in ornament is a common, and commonplace, taste; and this, like the imitation of other natural objects, frequently arises from the same state of mind

already noticed (p. 17), which in a town delights in scenes derived from the country. It is also the cause of that disagreeable confusion of natural and conventional forms so common at the present day. (*See* § 27, p. 215.)

52. There are many conditions which, though apparently of little consequence, often aid in making objects agreeable or disagreeable to the eye, even though it may not be able to perceive the reason; and the arrangement of lines in what may be considered most unimportant cases may interfere with the harmony of the surrounding objects. Thus, in a room, where pictures are suspended from one nail by a cord,

(47.)

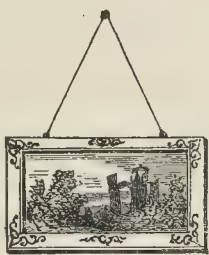


Fig. 1.



Fig. 2.

the triangular arrangement of the lines has a discordant effect, which is not produced by two cords attached vertically to two nails.

53. The arrangement of the interiors of houses is a subject that demands more attention than is generally bestowed upon it in this country. It is not sufficient to confide the matter to those who have accidentally made it a trade; nor is it a great public building alone that requires artistic skill for its decoration. The benefit of good taste should be extended to every private dwelling, and the means of judging of it should be *general* among all classes. The talent it requires is rarely met with among house-decorators, who are generally little qualified by suitable education for their office; but unless a greater degree of taste is possessed by them,

or by their employers, there is little prospect of improvement in our mechanically finished houses. If the architect must be a man of the highest education, the house-decorator should at least possess, besides all the ordinary requirements of his trade, such historical knowledge as will acquaint him with the customs of the times, or countries, to which various styles of furniture belong; for we are as much offended by a mixture of classical and mediæval objects in a Tudor room, as by some of those modern French figures of Charles Martel, and others who, though they lived before 1000 A.D., appear in the *plate-armour* worn four and five centuries later. He must also have great skill in drawing; a correct eye for proportion, form, and colour; and a quick perception of the combination of different objects, so as to be able to group them artistically, and display them with the greatest advantage to themselves, and to the general character of the room. If decorators seldom possess artistic knowledge, and the few who do have little influence on the general mass of the inferior members of their trade; how much less do upholsterers possess it! Were they all properly educated for their calling, we should not be offended at the usual bad taste and discord of colour in our dwelling-houses; nor see an unmeaning medley of heterogeneous furniture, like odds and ends accidentally brought together, without the recommendation of intentional and judicious variety. Nor should we find crowds of chairs, sofas, ottomans, and tables, some with thick, others with thin, legs, round, or square, or of various shapes and sizes, and for no particular purpose, together with nic-nacs, and such a wilderness of things, that their own safety is endangered, as well as that of the many visitors who are frequently crowded into the insignificant and overfurnished apartments of a town-house. Much will of course depend on the character of a room, as this will on the architecture of the house; so that it is difficult to decide upon a

style of furniture without considering those conditions. But it may be said that its effect should be sought in judicious contrast, as well as by a due attention to uniformity when the objects are required to match; and that it should be handsome and good in form as well as colour, with an entire absence of that meretricious character derived from a profusion of unnecessary ornament. Large pieces of furniture, like large patterns, should be excluded from small rooms; and those of very dark colour are objectionable, from their absorbing too much light. In such as are of a higher order, *excellence* should consist in the beauty of well-executed figures, and fine carving, rather than in any profuseness of detail: and beautiful woods, and inlaid work, are preferable to an appearance of costliness. Every object should be of good form; and chairs, such as we often see, with distorted legs, and tables rough with whimsical devices in *or-molu*, serving only to tear ladies' dresses, should be proscribed as being at variance with beauty and common sense.

Inkstands, and other articles of general use, made in the form of Gothic tombstones, with sharp projecting corners, sometimes even with finials and buttresses, have not only the fault of imitating an object made for a totally different purpose, instead of being expressly designed for their own, but are positively offensive, as they threaten to wound every hand that approaches them; and all furniture with unnecessarily sharp corners is open to the same objection.

54. With regard to tapestry, it is much on a par with old armour—a curiosity rather than an ornament. It was valuable when there was nothing better; and from its warmth it was often found a good covering for the bare walls of old times. But with the many better modes of decorating our modern rooms, it is no longer wanted; its subjects are generally odious in execution and design, sometimes glaring, sometimes dingy in colour; and really good compositions are

so rare as to be generally beyond the reach of those who may have a fancy to possess them. Tapestry has also the reputation of harbouring dust; and this is not an unreasonable objection, unless a fresh set be occasionally substituted, as in Cardinal Wolsey's sumptuous mansions. It is from the caprice of fashion and association, rather than from any real admiration of it, that tapestry is valued. Nor is the Gobelins worth its price; and this would be better spent on a real work of art. And while admitting the wonderful skill shown in its manufacture, we cannot but confess that it has gone out of its own province, and invaded that of painting, without equalling it by its greatest and most costly efforts.

55. Until those whose business it is to furnish houses possess the necessary education to fit them for it, no one should give himself up to their caprices; though it may be questioned whether many of their employers have sufficient taste, even if they would take the trouble, to correct the errors daily committed before their eyes. And here we have one of many proofs of the necessity of taste being *general*, and cultivated by all classes.

56. It is not my intention to give advice respecting the furniture of rooms, or the decoration of houses, either internally or externally; I confine myself to a few passing observations, without pretending to offer any new suggestions on this or any other point; but, in the words of Quintilian, "I shall be delighted if I can say what is right, though it may not be of my own invention," for my observations are only such as have doubtlessly occurred to many others who have thought upon these subjects.

To the decoration of houses the same rule applies as to that of public buildings; which is, that coloured or sculptured ornaments should not extend over the whole surface of the walls and other parts. Some repose is required for the eye. This was well understood by the architects of Greece; and it

is of great importance in churches, and other large as well as small edifices. The general effect should be that of broad masses; which, on near approach, may display the minuteness of detail not seen at a distance; and no more ornament should be used than is required, or can be managed with due regard to the expression of the whole. (*See Part I. Sect. X.*) The details should not be too large for the building, or the part they occupy; they should not be crowded; and small uncoloured spaces in the midst of coloured patterns, or mouldings, are agreeable from the relief and variety they afford, both in architecture, and in ordinary designs.

57. There is no better example of the mode of ornamenting a large expanse of flat wall than in Giotto's Chapel, at Padua, and in the library of Siena Cathedral; which are remarkable not only for their beautiful frescoes, but for the harmony of their general effect, and for the richness of their ornaments, so well adapted to those buildings, and to their own position. The Sainte Chapelle, at Paris, built about 1241-44, may also be noticed as a good specimen of ornamentation; though it requires some of that repose obtained from unornamented portions, already advocated. For its painted glass windows, which are of the best style and period, it is also highly to be commended; and like others of that age, they are excellent examples for study. (*See Part I. pages 35, 37, 38, 39.*)

As a general rule in the ornamentation of a building, minute details should not be permitted to interfere with the effect of the whole, and the extent to which they ought to be worked up must be determined with judgment. Too great minuteness of finish injures the breadth of treatment so necessary for whatever is to be looked at from a distance; so that it is better in some cases to have a slight indication of detail in the minor parts, than ornaments too highly finished throughout, which might create confusion. This applies equally to external and to internal decoration, and has been very

properly set forth by Mr. Ruskin ("Stones of Venice," vol. i. p. 244).

58. This should also be borne in mind in selecting a paper, or in colouring the rooms of a house, that whenever pictures are to be introduced, the walls should be of one uniform colour, without patterns, as these interfere with the effect of the paintings; and of all grounds for this purpose (as I have already stated, pp. 97, 105) a red, or a tea-green, may be mentioned as the best. No one with any feeling for art would hang good paintings on a wall covered with flowers, or a figured paper; and I have heard of an artist who always demanded a larger price for one of his works if he knew its position was to be on a wall so decorated, as if to compensate for the injury done to his painting, and to punish the purchaser for his ignorance. No pictures should be placed on such walls; they are degraded by them; while they too interfere with the appearance of a room so decorated. Nor should large paintings be admitted into a small room; still less if they represent the human figure above life-size; and in the decoration of its walls, when without pictures, the patterns should be small, as they would also have the effect of decreasing its apparent size. Bright furniture, and hangings of various and rich colours, should not be admitted into the same room with paintings; nor should porcelain, or other curiosities—particularly where, from their form or colour, they are likely to distract the attention—be allowed to interfere with them. Nor should statues be admitted into a picture gallery. When looking at paintings, we do not wish to pass from them to the contemplation of sculpture; and it is surprising that a people of taste, like the Italians, should place in one room the gems of their collection in painting and statuary, as in the Tribune, at Florence. Nor should pictures differing in style, depth of colouring, and other peculiarities, be contrasted with each other in juxtaposition, to their mutual disadvantage.

The best place for paintings on canvas, or on panel, is a picture gallery. There is, however, no objection to their being put up in an ordinary room, provided, as I have just observed, it contains nothing which can interfere with their effect; but pictures are out of place in the Christian church, as they were in the Pagan temple. The Greeks, like ourselves, had their picture galleries. Besides numerous other public places, used as *Pinacothecæ*, or picture galleries, Athens had in the Acropolis its *Stoa*, called from its pictures the *Pœcilé*, like that at Sparta; and Delphi, and other places, had their *Lesche*, for the same purpose. Every town had some kind of picture gallery; and when paintings were put up in a Greek temple, it was for security, and because beautiful works were honoured by a place in that sacred edifice. This was quite consistent with, and will explain, the fact of their not being mere dedications; and their subjects were seldom connected with religion, or the Deity of the place. They were not intended as part of the ornamentation of the temple; and, unless the walls were of some uniform hue adapted to their effect, they must have ill accorded with its coloured interior. The protection afforded them by the temple was the excuse for their being there; the place was not chosen as one suited to works of art; and if some were dedications, they proved the piety, rather than the taste, of the donors. So again, though the finest pictures may have been painted for churches, they are not suited to them on any plea. We do not go to church to look at pictures; and churches seldom have either a good light, or any other recommendation possessed by picture galleries; to which, moreover, the best paintings have, *in process of time*, been transferred. And this has been very fortunate for them, and for the public.

To paint historical or sacred subjects in temples, on the walls themselves, was not according to the custom of the Greeks; and the paintings of first-rate masters, as Pliny shows (xxxv. 10), were mostly confined to wooden panels,

or panel-pictures (*"tabulæ"*). Those on walls were generally the work of inferior artists, who scarcely rose above the rank of house-decorators; and neither Ludius, nor any other wall-painter, was of any great renown. Nor were his subjects of the most elevated kind; and Pliny says that Ludius took them from common life, according to the *taste of his customers*; sometimes painting land or sea views (very similar to those still repeated by the Greeks in Turkish houses); sometimes presenting pic-nic parties approaching villas on asses, or in carriages; as well as fishing, vintage, and similar, scenes. Thus, says Pliny, "there were no paintings on Apelles' house, nor was it then customary to paint whole walls." Panel-pictures had also this recommendation, that they could be easily removed to some other place, or sold if their owners wished to part with them, and might be rescued from fire. It was from their being moveable that in after times, when Greece was conquered by the Romans, its valuable pictures were carried away to Italy; which, as Raoul-Rochette observes, accounts for Pausanias saying so little of pictures in Greece; the walls in his time being left bare in consequence of that spoliation by the conquerors. This sufficiently shows how little we can judge of ancient Greek painters from the few frescoes which remain, or from the works of late and inferior artists at Pompeii; and as the Greeks thought their painting equal to their sculpture, we can only conclude that such good judges of art did not form an erroneous estimate of the works of their own great masters.

Long before the destruction of Pompeii, painting had fallen from its high position; and house decoration had been spoilt by the introduction of extravagant ornament. Already in the Augustan age Vitruvius complained of the reeds for columns, buildings standing on candelabra, and the masses of red colour used in painting walls; and we have seen what was the style of decoration at the same period adopted by

Ludius. So degraded had taste long become, that the paintings of Piræicus, representing cobblers' stalls, asses, eatables, and the like, "sold for higher prices than the largest works of many masters" (Pliny, xxxv. 10); and the same vulgar affection for commonplace ornaments introduced bronze trees laden with lamps in lieu of fruit, which Pliny (xxxiv. 3) tells us were much admired; and which may be considered on a par with the iron trees in some modern gardens, that shower down water on an unsuspecting visitor, through their hollow branches.

59. *Painted sculpture* ornamented the temple; and this was composed of figures in high or low relief in the frieze, pediment, and metopes; which, like the architectural details of the whole edifice, were coloured. The interior was also decorated with painted patterns, many of which are still visible in the Parthenon, and other buildings; and some of the architectural details were merely painted on the surface of the stone, instead of being (as usual) first sculptured and then coloured; which may be seen in many Ionic capitals and fragments of entablatures at the Athenian Acropolis, and other places. That the bas-reliefs and the figures of the tympanum were coloured is well known; and indeed if this were not proved by the vestiges of colour which remain, it would be sufficiently obvious that those accessories could not have been left colourless, as glaring contrasts to the rest of the painted building; and if some have been unwilling to believe it, the authority of ancient authors, and the remains themselves, have decided a question which ought never to have been uncertain.

The same custom was extended to the plastic works of the Greeks, on some of which traces of colour may still be seen; and the grapes and fishes made in clay by Posis, at Rome, were chiefly indebted to their colour for being such faithful

copies of nature, that Pliny (xxv. 12) says, "non sit aspectu discernere à veris."

There is sometimes a tendency to adhere to antiquated notions long after facts have been proved; and it has even been disputed whether *any* portion of a Greek building was coloured, in defiance of undeniable proofs such as are afforded by the Parthenon, and other monuments in Greece, Sicily, and elsewhere. But the fact is well established, and it is very evident that the many porphyry, and other, columns in Roman buildings, were intended as more durable substitutes for *painted* shafts. Besides, when we recollect that no one in an Athenian sunshine could bear to look upon the glare of white marble, we may readily believe how necessary colour was for the eyes of the spectator, as well as for the embellishment of the building.

When marble was first used, it was a substitute for the stuccoed wall, and the custom of painting this was continued on the more durable material. And that a building was looked upon as unfinished, until so ornamented, is shown by the whiteness of the Prytanêum and Agora of Siphnos being a peculiarity, when the Pythia gave out this oracle: —

"When the Prytanêum in Siphnos shall be white,
And the Agora white fronted, then there is need of a prudent man
To guard against a wooden troop, and a red herald."

For having been, as Herodotus says, "then fitted up with Parian marble," the Siphnians had not yet *had time to colour* them, when the Samians came in their "*red*" galley to ravage their lands.

And if Pliny (xxxvi. 5) mentions a chapel of Ephesus, behind the great Temple of Diana, which strangers were warned not to look at too long for fear of the glare of the white marble injuring their eyes; this was an exception, as the necessity of the warning itself implies. Pliny too shows that colour

was usual on buildings when, in speaking of the variegated marble of Chios, used for building the walls of the city, he says, "painting (*i. e.* of walls of buildings) would not have been held in the same, or even in any, esteem, if coloured marbles had been in fashion" (xxxvi. 6).

The primary colours were those preferred by the Greeks for the various parts of the entablature—a combination quite in accordance with pure taste in architectural ornamentation; and fragments discovered in an excavation made at Athens in 1825, were "painted with the brightest (vermilion) red, (ultramarine) blue, and yellow." The same colours were employed by their imitators the Etruscans. They were introduced into the architectural details; but some others were also admitted*, and gold was employed in highly ornamented mouldings. The colour of Greek bas-reliefs varied at different periods: the figures in the oldest times were of one uniform red hue, with a background of blue; and at first the natural hue of the flesh was not attempted in the human figure, either as a statue or a bas-relief. But (as I have before remarked†) colour was an essential part of architectural decoration.

60. This was the case in all countries: as in Egypt, Assyria, Greece, Etruria, and, in later times, in the churches of Christian Europe. In Egypt it was employed for the mouldings and members of every building, whether public or private; and the hieroglyphics formed a rich ornament to the flat surface of the walls. Statues, obelisks, and other monuments made of granite or other hard stone were also coloured, sometimes even when polished; but in this latter case the surface was generally left uncoloured; the hieroglyphics alone being painted, mostly blue or green. The natural hue of the stone then served instead of artificial

* See Part I. p. 17.

† See Part I. p. 24.

colour (like that of the Purbeck marble columns in our own churches); and the walls of tombs, and even small monuments, as statues, and other objects, in common stone, were often stained to imitate red granite, like the interior of a tomb at Beni Hassan.

61. Pliny says the oldest *paintings* (long before the age of Romulus) were monochrome, or of a single colour; which is perfectly true of all archaic paintings representing the human figure, to which he here evidently alludes; but this remark applies equally to early *statues* and *bas-reliefs*, which were originally of an uniform red hue, as I shall have occasion to show.

Raoul-Rochette ("Peintures Antiques," p. 237), considers portraits to be very rare in Greece; and doubts their being called *catagrapha*, or *obliquæ imagines*; but though these do not actually signify portraits, they might be applied to any painting where the head was "foreshortened;" and Pliny even appears to use the expression "*obliqua imago*," for "profile."

Raoul-Rochette also thinks profiles were rare; which is true with reference to first-rate pictures of the best periods; but there is little doubt that the earliest representations of the human face were all in profile, which continued till a late time on vases and the walls of tombs. Such too was the mode of drawing it among all early people, and in the infancy of art; as we learn from the paintings of Egypt, Etruria, and other countries. Portraits were of very early date in Egypt, and they were in profile; the full face was rare, and always unpleasing, and the three-fourth face was quite unknown; but in Greece both these last appear to have been preferred to profile, when art was developed; and Pliny (xxxv. 10), shows that Apelles only made the portrait of Antigonus in profile, to hide an imperfection. "Pinxit et Antigoni regis imaginem altero lumine orbam, prius excogitatâ ratione vitia condendi; *obliquam* namque fecit, ut quod corpori deerat, picturæ potius

deesse videretur, tantumque eam partem e facie ostendit, quam totam poterat ostendere." Quintilian (ii. 14) mentions the same reason for his deviating from the custom of representing "the full face, which is the most beautiful in a picture," and says "*imaginem Antigoni latere tantum altero ostendit;*" and this being considered a deficient mode of representation shows the low estimation in which they held a mere profile. It appears that Pliny, in speaking of Cimon being the inventor of "*catagrapha, hoc est obliquas imagines*" (xxxv. 8), also applies this term to faces in perspective, or foreshortened, as he mentions them looking back, and in various positions; and this treatment of the human head was considered, with good reason, to be far more artistic than the profile. Full and three-quarter faces were also placed on shields, glass ornaments, walls, engraved stones, and in the lacunaria or coffers of temples, (as at Baalbek, in later Roman times,) as well as on medallions, and even on many coins of the best periods, though on these last the face was generally in profile. But this question is not important in reference to the decoration of buildings. There is, however, another which may be noticed, as it is in some degree connected with it; and which has lately excited some attention. This is the colouring of statues by the Greeks.

62. We have so long been accustomed to see white marble statues, that we can scarcely be brought to believe they were ever coloured by the Greeks: but it is not the less true; and it is not improbable that if they had only left to us the human figure drawn in outline, some might have maintained that to colour it in any picture representing a classical subject would be meretricious, and that the severity of antique taste required it to be in plain outline. It is, however, far from desirable that the colouring of statues should be attempted at the present day; none but the very first artists among the Greeks succeeded in it, and mediocrity in the most difficult branch of

art would be intolerable. But our inability to succeed in it does not prove the custom never to have existed; as a bad picture is no argument against the possibility of excellence in painting; and because we cannot succeed in giving a good effect to coloured statues, let us not hastily conclude it was never done by others. The Greeks appear to have considered the colouring of statues a difficult branch of art; and we are justified in this conclusion by what Pliny tells us (xxxv. 11):—that Praxiteles attached a higher value to those of his own statues which had been coloured by a first-rate painter. For being asked which of his statues he considered the best, he answered: “those to which Nicias had applied his hand;” showing “the importance he attached to the colouring (*circumlitioni*) of that artist.”

Some have raised a question respecting the meaning of the expression *circumlitio*, which has been thought to be simply a *finish* to the marble, or a *coating* of some kind to impart softness to the stone; but it would be strange if a first-rate sculptor were obliged to apply to another person for such assistance, or if a painter of eminence were called upon to give any other aid than that which his particular art would supply. A sculptor would be as capable of adding the necessary finish or coating to the marble as the painter, and *circumlitio* will not apply to a coating of *coloured* wax rubbed into the heated marble, as some have suggested. Indeed, when Vitruvius mentions this latter process (vii. 9),—the *καυσις* of the Greeks,—he does not apply to it any term similar to *circumlitio*; and that *circumlitio* signified “painting” is proved by the “*pictura in quâ nihil circumlitum est*” of Quintilian (viii. 5, 26); by Seneca’s saying (Ep. lxxxvi. 5), “*illis (marmoribus) undique operosa et in picturæ modum variata circumlitio prætexitur*;” as well as by the frequent use of derivatives from the verb *lino*, in later times, with reference to *painting*.

Signor Monti thinks all statues were coloured *before* the time

of Praxiteles; but if he left a nude Venus uncoloured, as Signor Monti states, this does not prove an old custom, that of colouring statues, to have been then abandoned, and a new one introduced by him. Indeed, we find from Pliny, that the Romans *began* to paint statues (“*cœpimus et lapidem pingere*”) ages afterwards, which could only be in imitation of a custom still prevalent among their masters the Greeks, and must signify that the Romans then, for the first time, began to give them the natural flesh-colour; the custom of painting them of *one uniform red hue* having existed at Rome from the earliest period. It is not probable that the Greeks coloured statues in old, and then again in later times, after having abandoned the custom during the intermediate period; nor will any one maintain the mere painting in monochrome red ochre continued to the time of Praxiteles. Phidias, who, as Pliny more than once tells us, was a painter before he became a sculptor, painted the shield of Minerva’s statue, and his brother Panæus the inside of the same shield; Lecythion also painted a shield of Minerva’s statue (Pliny, xxxv. 8); and Phidias, as Strabo tells us (viii. 244), was assisted by Pandæus in colouring the statue of Jupiter at Olympia. So that we have here other notices of coloured statues at the best period, a little before Praxiteles; and Plato (Rep. iv. 420) says they painted them according to the colour of each part: that is, of the natural tints. Ovid too (Am. ii. 5, 39,) alludes to the colouring of ivory to represent the face: and it was so treated in the Chryselephantine statues.

63. Some who have felt the impossibility of denying the authority of such writers on this point, have endeavoured to compromise the matter by supposing that a mere tinge was given to the marble; while others, who admit that the statues of early times were painted of one uniform hue, maintain that the refined taste of a later age discarded that archaic custom, without making in its stead any attempt to imitate the

natural colour of the flesh. But neither of these prove that real colour was not attempted. It is true, that in the oldest Greek statues (even after the first, or wooden, period), the flesh was painted with the same tone of red throughout; such as we see in Egyptian, Etruscan, and other early sculpture; and the Romans, till a late time, continued the custom of giving an annual coating of what is called "vermilion" (usually red ochre), to their statues, as to that of the Capitoline Jove. This was the primitive practice retained; and it was spoken of as one of *old*, not of recent, time. There were also other modes of colouring statues, as well as figures in plastic work; but these do not bear upon the question of imitating the flesh tints. Moreover, those who express their exclusive admiration for white marble, forget that Greek statues were not always of that material; that wood, terracotta, bronze, and other substances were also employed for the human figure; and that it was not in order to show the texture of the material that Parian or other marble was chosen, but because of its quality for working, its durability, and the other advantages it possessed over wood and common stone. It would not certainly be a recommendation of Parian marble, that its crystals were larger and more marked than any other; there could not, therefore, be any scruple about concealing them with paint.

The fact of statues having been painted is farther confirmed by the coloured eyes often alluded to (Pausan. i. 14, &c.), and still remaining in some instances, as well as by the jewels that adorned them; and Virgil, Ecl. vii. 31, says:

— "levi de marmore tota
Puniceo stabis suras evincta cothurno."

And when we know the dresses were coloured, as well as other accessories, we can scarcely suppose that the face, hands, and feet were left white; or that a white marble figure stood in

glaring contrast to walls, and other parts of a building, richly ornamented with colour. And if the Theseus and the other figures in the *tympanum* of the Parthenon were coloured, as we know they were, few statues would feel themselves degraded by such a condition. Indeed, these were in reality statues, and detached figures, like many others; and affixed to the *ground* behind them, when placed in their proper position on the temple.

In the old wooden colossal acroliths, even to the time of Phidias, the face, hands, and feet were of marble, while the body was of wood, covered with real drapery; and there can be little doubt that this was in order to have the advantage of a smooth surface, well suited for fresh colours; and as the eyes were inlaid with coloured stone in many of the most celebrated statues, and the various accessories were richly painted, the flesh could scarcely have been left of a cold white, or even of any simple monochrome hue.

The Greeks even attempted to carry out the same effect in some bronze statues; and the account of the figure by Scopas, of a Bacchante holding a disembowelled fawn, shows how the contrast of colours usually given by painting was welcomed in the hue of the metal accidentally afforded by fusion. Pliny also tells us that they attempted to give to bronze a variety of hues, by mixing it with iron, "that the blush of shame might thereby be expressed;" and they imitated purple draperies in these statues, by combining the bronze with lead (xxxiv. 9, 14, Plut. Op. Mor. 18 C 674 A).

What were the busts of Roman time, made of different coloured marbles, but a substitution in stone of the hues commonly applied to the sculptured surface? And what can look worse than those now bleached faces, contrasted with the colours of the marble drapery? No one will doubt that the face was painted; and the reason of its not being also of a coloured material like the dress is, that no natural colour of a stone

could imitate the *varied tones* of the flesh. These required to be *painted* upon the surface of the white marble.

64. Various proofs of the Greek custom of colouring statues have been well brought forward by Quatremère de Quincey, Raoul-Rochette, and other writers, who have carefully studied the subject; but I may mention one more evidence of the natural flesh-colour having been used, derived from the bas-reliefs on the ash-chests of the Etruscans; in many of which the colours are perfectly preserved to this day. And this is the more remarkable, as the Etruscans at the same time continued the custom of giving the uniform red hue of a primitive age to the recumbent figure on the lid of the very same ash-chests. They also retained with the monochrome colour, the stiff character of that period; which a religious prejudice prevented their altering, or which at least was sanctioned by early habit.

But the figures sculptured in relief on the chest itself were all painted flesh-colour, with the draperies and other accessories of their natural hue; it is therefore impossible to deny that the custom of giving the human figure its natural flesh-colour was commonly adopted. The art, the subjects they chose, and the whole taste of the Etruscans was (it is well known) a mere copy of the Greek; and the authority of their sculptures is of the greatest weight in this question. These ash-chests also give several curious specimens of the mode of colouring the echinus and other Greek mouldings.

The coloured wooden statues at Seville, and some other places in Spain, particularly Valladolid, are derived from the custom handed down from olden times; and every one who has seen it admits the admirable effect of Torrigiano's figure of St. Jerome at Seville. If, however, nothing exists at the present day sufficiently good to warrant the adoption of the practice, this may readily be accounted for by the inferiority

of modern, compared to ancient Greek, art; but it is no proof that it was not done, and not done successfully, of old.

It is true, that a statue does not stand in need of colour to render it perfect as a work of art. It is not mere imitation that is aimed at; it is expression, which is the soul of representation; and our delight is to see how it *expresses*, rather than how it *imitates*, the reality. On the other hand, this is no argument against the use of colour: as it would not alter those conditions; otherwise, if colour is bad, because not required, in a statue, it must be bad in a picture, where it is also not an indispensable adjunct. For the conventional tints of some masters, or an engraving, or even an outline, may give truth and expression without the natural colours. Nor would instances of figures drawn by us in outline, or finished without colour, suffice to prove at some future period, that we never coloured the human figure. Yet this kind of argument is used by those who disbelieve the Greek custom of colouring statues; ancient authors are quoted, who mention *some* uncoloured statues; and the universal conclusion is drawn (from such particular premises), that none were ever coloured by the Greeks. Some, no doubt, were uncoloured, and some merely stained, others were gilt, and others coated with wax were polished by much rubbing. The staining and encaustic processes were not unusual, and gilding was frequently resorted to, especially in later times; and Pliny (xxxvi. 4,) mentions a statue of Janus, either by Scopas or by Praxiteles, which in *his time* was quite hidden by the quantity of gold that covered it. But this was certainly not the intention of the sculptor, nor the custom of his day; and the fact of certain statues having been uncoloured would not disprove the employment of colour in others, even if we had no positive evidences of it; and the practice of applying some tone, or coating, to the uncoloured marble, may be attributed to the general prejudice

in those days against a white, and in favour of a coloured, surface.

65. I confess, however, that I am by no means an advocate for our adopting the custom : and at all events, until we have reached the same point of perfection as the Greeks, it will be far better to abstain from the attempt. The question of the good taste is one; that of the fact another. With regard to the latter question, whether the Greeks really painted their statues, there does not appear to be a doubt; and all that can be said to the contrary is, that they sometimes substituted for the colouring some other processes. We may not wish to introduce it, but this does not alter the fact; and it is pretty evident that, right or wrong, it was adopted by the Greeks in the *best age* of art. Some, again, who admit that the Greek statues were coloured, argue that the custom was one derived from old habit, not from any notion that it improved, or imparted life to, them; that it was only a modification of the ancient custom of staining them of one uniform red hue; and that if they had not previously adopted that early custom, they would not have introduced the other in after times. But they were a people of too much judgment to practice on that account what was at variance with their notions of good taste; and they did not certainly allow their paintings*, to be influenced by that early custom. With the Egyptians, old habits were binding; but if any were retained by the Greeks, they were the exceptions in particular cases; and every one will admit that their judgment and taste were permitted to enjoy as *free* a scope as our own.

66. The Greeks, it is true, began with stiff figures in profile, with the eye in front, as in Egyptian paintings; but they were not long in discovering the want of truthfulness in this

* Pliny (xxxvi. 5), in saying that sculpture is older than painting, pretends that "this and the art of casting statues in bronze commenced with Phidias, in the 83rd Olympiad;" (about B.C. 446.)

conventional treatment; and, as in modern art, they gave to each figure its own individual expression and features, the due effects of light and shade, and all the reality of a copy from nature.

Until they brought about this reform, the imperfect art of all antiquity was satisfied with one type for every figure, which was varied only by dress, or some external mark; and even in domestic scenes all was equally destitute of natural expression. Even if a portrait was attempted, as by the Egyptians, it was a profile of the mere features, without life. The difference of age was indicated by grey hairs, and by the general aspect of the figure; but no passions were expressed beyond some mechanical gesture, as throwing dust on the head in token of grief, or the representation of tears flowing from the conventional eye which was alike in every figure. There was no expression in the features; they were the same in joy, grief, or anger; and each individual had the same inanimate face, whether in the fury of battle, in suffering, in joy, or in the stillness of death. This the Greeks were the first to rectify. To them art is indebted for its first real development; and men who could work so great a revolution in their previous habits are not likely to have been biassed thereby in one particular instance.

67. Another question has also been raised, respecting undraped statues of Venus; and the assertion, "*fuit nudas poena videre Deas*" has been brought forward to prove that no nude figure of a goddess was tolerated by the Greeks. But without setting any value on the remark of Cicero, "*Græca res est nihil velare*," it may be observed that though the goddesses Juno, Minerva, and others, were not represented naked, the notion that no statue of Venus was undraped in the best periods is opposed by the authority of antiquity; and if the Venus de Medicis may be of too late a time to be cited, we know from Pliny that a nude statue of that goddess was made

by Scopas, and another, the famous Cnidian Venus, by Praxiteles, which he tells us* was considered so "superior to any other ever executed by him, or by any other sculptor, that many undertook a voyage to Cnidos for the express purpose of seeing it." I do not know for what reason Signor Monti, and others suppose this to be the first time the goddess was so represented; but even if it were so it would not be sufficient to support the assertion that naked figures of Venus were unknown in sculpture during the most flourishing era of Greek art. If, however, we consult the same writer, Pliny, we shall find that he mentions (xxxvi. 5) another naked Venus of an *older* sculptor than Praxiteles, which he thinks worthy of notice, even in the midst of so many works collected in the Flaminian Circus, and of a style "which would ennoble any other collection."

68. I have spoken of the proper place for pictures; and as they require a suitable and independent position, so do good statues; for as a Raphael should not be part of the mere ornamentation of a room, so would it be an error to place the Apollo, or any other first-rate statue, in a subordinate position, as if it formed part of a building. Such works of art claim exclusive admiration; and should not hold the rank of accessories, like Caryatides, or other architectural statues. And if figures by first-rate sculptors were placed in the tympanum of a temple, it was owing to their being parts of the subject that decorated it; and their excellence as works of art did not of course exclude them from that position. Being from the hand of skilful sculptors, they could not fail to be good; for the devoted affection of the Greeks for art would not allow them to spare their best efforts in any work, and they gratified their own feelings while they did honour to the Deity to whom it was dedicated. It is true that such a position for figures was too high to exhibit their full merits, however grand might

* Plin. N. H. xxvi. 5; Paus. ix. 27.

be their general effect; but this did not make the Greek sculptor less scrupulous in his work; and as a proof how conscientiously the excellence of sculpture was studied, even though it might afterwards be hidden from the eye, the unseen back of the Theseus was as highly finished as any other part. Here, as in many other instances, they were statues under the conditions of *alto-relievo*.

However admirable may be the figures met with in a tympanum, a frieze, or a metope, these are not the situations where sculpture can be seen to the greatest advantage, and much of the exquisite beauty of the Panathenaic procession on the cella of the Parthenon was concealed by its position. But, on the other hand, figures forming *alto-* or *basso-relievo* have not the same rights as statues; being subservient to the decoration of the building. Again, a position suited to figures in *relief* is not always tolerable for a statue; the treatment also of the two is frequently different; for while the same action may be given to figures in the former as in a picture, a single statue has generally a more pleasing effect in repose. The relative conditions of a statue and a bas-relief, and of a picture on canvas (or panel) and a fresco, or a mosaic, are in some degree analogous:—the one belonging to a building, which the other does not.

The position of a statue in a niche is not always disadvantageous to it, and it is an ornament to the building within which it stands; but to do real justice to it as a work of art, it should be so placed as to be seen on every side; and it often happens that in a niche it sacrifices some of its own advantages to those of the building. Again no position should require the beauty of a statue to be spoilt by gilding, though it may find a plea in ancient custom.

The employment of figures above life size requires great judgment (as I have already shown, § 40, p. 241). The Greeks felt the difficulty; and Professor Cockerell thinks that,

in order to overcome it, they had different gradations of size for figures in the same building, from the small ones on the frieze of the cella to those in the metopes, and the semi-colossal ones in the tympanum.

69. The same judgment is required for determining the position and character of figures painted in fresco. For when, in order to enable us to see them properly, they are made colossal, an injury is often done to the building they ornament, by taking from its apparent dimensions and disturbing its proportions; and when painted on a ceiling they will frequently lower it to the eye, while the neck of the spectator suffers torture as he contemplates their beauties. It may also be doubted whether a ceiling is a fit place for figures; except under particular circumstances. In rooms, such as are so common in Italy, which lead to other apartments, figures on the ceiling are objectionable for this reason also: that while in approaching from the entrance they appear in their proper position, when you return they appear standing on their heads, or at least no longer perform the due conditions of the picture. Such a place is ill suited to them; though they may be more admissible on the ceiling of an alcove, or an apse, where they are *only* seen in front. Pictures in small medallions are not quite amenable to the same objection, especially when they are subservient to the general ornamentation; and from their smaller size the figures there offend the eye far less, even when they appear reversed, than in large compositions.

70. Figures used for architectural ornament depend very much for their effect on the position in which they are placed. Large and small statues on the same wall are generally incongruous, particularly when close together, as part of the same ornamental sculpture. Many too share most unfairly the honours or the advantages of position; for while some stand very appropriately, at the side of the doorways of our

cathedrals the majority of them are shelved in the archivolt above, in such a manner that the uppermost figures are almost condemned to stand upon their heads, or when seated on a throne appear ready to fall out upon the passing congregation. Nor are instances of unsuitable positions wanting elsewhere; and the same disregard for propriety condemned the winged messenger of Victory, on the Roman arch of triumph, to be squeezed into an uncomfortable spandril which had itself the awkward form of an angle subtended by a segment of a circle. What, indeed, could be expected from any part of a Roman arch of triumph?—that compound of bad taste, with the lightest part below struggling under a mass of informous masonry, often made more monstrous by the colossal and graceless letters of its inscription. Nor do its columns, supporting at most a statue, and acting a part totally independent of the building, diminish its heterogeneous character; though they are useful in giving us the most convincing proof of the vertical line having first begun in Roman buildings, and not, as too hastily concluded, in what is called Gothic architecture. For there we have the column, with the pedestal it stands on, running upwards and forcing the entablature to project in order to follow its direction; and the statue above (or the corresponding portion of the attic) carrying the vertical line from the ground to the summit of the monument. And the same tendency may be observed in the lines of columns, one over the other, in different stages, which extend the vertical line to the summit of the Coliseum and other buildings.

71. This is one of many instances of the gradual rise and progress of every kind of architecture, and shows how erroneous is the common notion of certain styles having been "*invented*." Few styles are really "*invented*." Each grows up gradually out of an earlier one; and the Greek, the Roman, the Saracenic, the so-called Gothic, and others, were not of independent

origin; nor did they start into existence, Minerva-like, in full beauty from the head of any creating genius. The Greek derived much from Egypt and from Asia; the Roman directly imitated the Greek, and having decomposed the simple outlines and forms of its predecessor, it prepared the way for the various styles that grew out of it. It was the debased Roman that gave rise also to the Byzantine, the Romanesque, the Lombard, the Saxon, and the Norman.

72. The early Arabs in like manner, in their round-headed windows, their massive unornamented walls, and the semicircular arches supported on columns, imitated the latest Roman works; they then derived more varied features and greater luxury of ornament from Persian and from Byzantine buildings, borrowing from these last the cupola and some other peculiarities that have ever since formed marked features in Saracenic architecture. They even derived the pointed arch from some earlier Eastern people, for it is of a far older period than is generally supposed; and some isolated examples of it occur in monuments erected before the Christian era. It was perhaps first *regularly* employed by the Arabs; and in 879 it was already commonly used in their mosks. Nor can there be any doubt that its introduction into Europe was owing to an intercourse with the East, to which pilgrims resorted before it was known in Europe, even if, as there is reason to believe, it was used in France as early as 1047; as in the Church of St. Front, at Périgueux. In like manner, it was to the Byzantine Greeks that Italy was so deeply indebted for her early art in painting, for her mosaics, and for many architectural hints. Nor is it surprising that the pointed arch should have been adopted as soon as it became known to our architects; even the Normans, prepossessed as they were in favour of their round arch, introduced it into their Sicilian buildings, in imitation of the Saracens; and when the height of our churches increased, its importance was felt from its fulfilling a

condition so much required. How fanciful, then, is the idea, now so often repeated by those theorists who appear to look upon architecture as if it were part of religion, that the pointed style is especially Christian. It was neither exclusively, nor even originally, Christian.

73. Mr. Ruskin makes a very just remark respecting "the system of aspiration, so-called, which the German critics have so ingeniously and falsely ascribed to a devotional sentiment pervading the Northern-Gothic." He "entirely and boldly" denies "the whole theory;" and adds, "our cathedrals were for the most part built by worldly people, who loved the world, and would have gladly stayed in it for ever; whose best hope was the escaping hell, which they thought to do by building cathedrals, but who had very vague conceptions of heaven in general, and very feeble desires respecting their entrance therein; and the form of the spired cathedral has no more intentional reference to heaven, as distinguished from the flattened slope of the Greek pediment, than the steep gable of a Norman house has, as distinguished from the flat roof of a Syrian one. We may now, with ingenious pleasure, trace such symbolic characters in the form; we may now use it with a definite meaning; but we only prevent ourselves from all right understanding of history, by attributing much influence to these poetical symbolisms in the formation of a national style. The human race are, for the most part, not to be moved by such silken cords; and the chances of damp in the cellar, or of loose tiles on the roof, have, unhappily, much more to do with the fashions of a man's house building than his ideas of celestial happiness or angelic virtue." ("Stones of Venice," i. p. 146.)

Analogous to this is the idea of blue being "the colour of humility;" but I hope to be pardoned if I ask whether it is in connexion with blue stockings, blue beard, or any other appli-

cation of the colour; for its predominance both in the sky and water does not help us to an explanation.

With equal inconsistency, it has been thought that a love of some particular kind of art must be connected with religion; and the enthusiast in the one often becomes the enthusiast in the other. It is true the most elevated sentiment in painting is derived from sacred subjects; but a man of sense and taste need not be influenced in his feelings for religion, or art, by such accidental circumstances; as he may admire Greek statues and Greek architecture without any Pagan predilections. (*See below, § 87.*)

The supposed "eminently Christian" architecture, the pointed style, was in reality derived from the Moslems: Rome, which has been considered an important Christian city, before and after its introduction, never adopted it; and the early Christians were perfectly innocent of its religious importance and peculiarities. The theories of vertical lines ascending towards heaven, and being therefore connected with a religious sentiment, may amuse imaginative minds, but are neither consistent with common sense, nor in accordance with fact; and are only liable to end in confusion, without eliciting any truths connected with architecture.

74. The *origin* of the pointed arch has been a question still more obscure than that of various styles of architecture; but the attempts to derive it from the intersection of two round arches, groined vaults, the interlacing of trees, or other accidental combinations, have now been wisely abandoned. Indeed, when we find it used throughout the *mosk* of Ahmed ebn Tooloon, at Cairo, as early as 879 A.D.*, and constantly employed after that period as the received style of building of the day, we may feel convinced that some more reasonable, and

* The horse-shoe round arch was also used about the same time; and it is found in the court attached to the same *mosk*, though added after the completion of that building.

far older origin, must be ascribed to it. It is true that several earlier specimens of the pointed arch date about the beginning of the 600; but it was then only employed for covering passages and narrow spaces, while the round arch still formed the roof of large chambers in the same buildings. It had not yet become a substitute for the latter; and it was probably not an acknowledged architectural principle in Egypt much before the middle of the 800. It may also be questioned whether the imperfect pointed arches, built by the Christians of Egypt in the 600, were an original idea gradually developed by them, or an imperfect imitation of some which had been occasionally met with in older buildings; for a pointed arch, regularly constructed with a keystone, covered one of the chapels before a pyramid at Gebel Berkel, in Ethiopia, which was coeval at least with the early part of the Roman empire; and *imitations* of the pointed, as well as of the round, arch, hewn in roofs of horizontal blocks at Thebes about 1460 B.C., seem to show the former to have been also constructed at a most remote age. Nor was it in the valley of the Nile alone that we have proofs of the pointed arch being known in those early periods; and one still remains over the *inner* passage of the aqueduct at Tusculum*, which if not, as some suppose, Pelasgic, dates long before the Christian era, and is pronounced by the valuable authority of Canina to be coeval with the Latin Confederation. Others are found in Asia; as at Zendan (*see* Rich's Koordistan, p. 254) and in St. Paul's dungeon at Ephesus (Arundell's Asia Minor, vol. ii. p. 256), and one was discovered by Mr. Layard over a drain in the S.E. palace at Nimroud. There appears to be some reason for believing that the pointed arch was of Assyrian origin; and the *imitations* of it cut in the rock by the early Egyptians may possibly have been borrowed by them

* Not the *outer* one, which is partly cut into the overlapping stones, and partly pent-roofed. *See* "Pop. A. Ant. Egyptians," vol. ii. p. 261, woodcut.

from Assyria; and this will accord with its introduction by the Arabs from Asia. To be *imitated* it must have been seen.

75. The pointed arches of the Christians (already mentioned) were of a construction very similar to the earliest Egyptian round arches, the bricks being placed lengthways; but the greater part had the centre formed of a half brick, or of two fragments of different sizes, to serve as a key; and small pieces of stone were inserted between the upper edges of each brick, when not bevelled off into a wedge shape, in order to fill up the vacant space at that part.* The key was therefore adopted in the earliest pointed arches. It was often dispensed with in later times; and this is not surprising, as it is by no means a necessary feature of a pointed or even of a round arch, the real principle being that each brick or stone shall radiate to a common centre. The central brick gives to these pointed arches an oval form, and looks like a transition from the round arch; of which they preserved the height, while the span was diminished; and instances even occur of similar shaped arches in Roman buildings, even though the bricks are placed laterally, as at the Baths of Caracalla, over a small pent-headed opening in a wall.

There can be little doubt that the round arch owes its origin to the use of bricks in roofing buildings constructed of that material; and nowhere is it more likely to have been required than in a country like Egypt, where timber for rafters was rare, and bricks were extensively used. We are not, therefore, surprised to find round brick arches at the early period of 1490 B.C. at Thebes. Both the round and pointed arch seem to have begun with rude bricks, placed lengthways. And if the early Christians only used the latter to cover passages and other small spaces, the early imitations of it (1460 B.C.) hewn in the rock are, in like manner, confined to narrow chambers;

* See my "Egyptians in the Time of the Pharaohs," pp. 138—141.

as if it had always been thought, when first adopted, to be incapable of the same expansion as the round arch.

I have said that the pointed arch is supposed to have been employed in France in 1047, and some think before that time; but it was not the general style of building till long after. And as its early adoption may be easily explained by an intercourse with the East, so its general introduction may be ascribed to the Crusades. Nothing could be more natural than that the Crusaders should copy it from a people more civilised than themselves, or that they should adopt what was a prevalent style in Syria; and no one is surprised to find a church (now a mosk) built by them at Beiroot with the pointed arch surrounded by the Norman zigzag, or chevron, moulding. Its invention cannot certainly be claimed by Europe, when it had long before been the ordinary style of building among the Arabs; and this we know of its history, that it first came to France, and thence passed to England, where, though it appears to have been employed with Norman round arches as early as 1135, it did not come into general use till about 1200. In France too the tracery of windows was first developed; and, again, the Renaissance style found favour in England through our intercourse with that country, to which we have always been so much indebted for the arts of *luxé* and the advancement of decorative taste.

It is singular that though the Normans in Sicily soon adopted the pointed arch from the Saracens, it was not introduced into the buildings of Normandy itself till long after it had been used in other parts of France. In Italy and Germany too it was of later date than in that country. Of this, however, we may be certain, that the pointed style did not *grow out* of the Norman and the Lombard; it was *engrafted* on them; it was an exotic plant derived from the East; and there is no connecting link between it and its predecessors. It came as the pointed arch did to the Normans in Sicily, by

adoption; and neither there, nor elsewhere in Europe, did it grow out of the previous style. Moreover, Gothic is not necessarily ornamented with foliage; the earliest style, the Transition, had none; only mouldings, and those mostly borrowed from the Norman; and in this it showed its nearer resemblance to the Saracenic of that period when it took its rise. Tracery and rich foliage were superadded afterwards; and they became, but were not originally, a necessary feature of Gothic, or pointed, architecture. Whence the Arabs first obtained the pointed arch is a question not yet solved; though, as I have said, it was not from Byzantium, as once supposed, but from Asia, and probably from Assyria.

76. With regard to the *invention* of the round arch, the same mystery prevails as about the later pointed one. All we know is that the Egyptians commonly used it for the roofing of tombs at least as early as 1490 B.C., as is proved beyond doubt by some still remaining at Thebes of that time; the paintings of Beni Hassan seem to show it was known to them five centuries earlier; and there is reason to believe it existed two hundred years before in the chambers of the crude brick pyramids. But it never became a feature of their architecture, to the character of which it was by no means suited; and the same may be said of it in Greece, where, though known, it was never introduced into any sacred building. It is mentioned by Aristotle (*de Mundo*, c. 6), and is said by Posidonius to have been invented by Democritus, who was born B.C. 460 (*Vitruv.* Pr. 7, and *Seneca*, Ep. 90); and from the description of it, with the stones gradually inclining (or radiating to the centre,) with a centre or key to bind them together, it was evidently on the same principle as our own, and not merely a domed vault, which differs from a real arch. But, as Seneca says, there must have been arched bridges and doors long before Democritus; and there is reason to believe that many of those that remain in Greece date before his time. One

of them is in the polygonal masonry of the walls of *Æniadæ* in Acarnania (Leake, *N. Greece*, iii. p. 560; Mure, i. p. 109; and *Mon. Ined.* pl. 57); another at Ephesus, in polygonal masonry (Canina, pl. CL.); another at Xerokampo, near Sparta, also with polygonal masonry about it (Mure, ii. p. 248; and *Mon. Ined. Ann. Inst.* 1838, p. 140); and Mr. Falkener found an arch in the polygonal walls of *Ænoanda*, in the Cibratis north of Lycia, with Greek inscriptions. The arch too of most perfect construction was employed by the Etruscans at least as early as the age of the kings of Rome, "in the 7th century B.C." (see Canina, part ii. p. 17); and Diodorus (ii. 9) describes a tunnel under the Euphrates at Babylon which was arched, of brick cased with bitumen, and twelve feet in span throughout.

Those semicircular roofs formed by the overlapping of layers of stone, into which the curve of the vault was often cut, were of a still earlier period, though used also at the same time with the arch; but they were false arches, and have no more pretensions to be classed with the real ones than many conical constructions of early times, such as the so-called tomb of Agamemnon (or Treasury of Atreus), the nuraghe of Sardinia, and similar monuments. It is remarkable that they are met with not only in Egypt, in Etruria, in Greece, in Pelasgic towns of Italy and Greece, but at Palenqui, in Central America, affording one of many examples of man's supplying his wants in the most distant regions in the same way. And, indeed, instead of wondering whenever we find men alike, we should rather feel surprised that they often have so little resemblance to each other in different parts of the world.

I have stated that in the earliest arches the bricks were placed lengthways, with the idea of making those large sun-baked bricks extend at once over the greatest possible space; and this is a sufficient proof that the ancient Egyptian arch was not derived from the summit of a primitive round hut;

which too would have led them to make their constructed tombs round, and not rectangular, as they always are in Egypt. The want of wood, and the desire to employ the same accessible materials throughout a building, led to its adoption; and it has been conjectured by Dr. Richardson that the boasted superiority of the brick pyramids over those wonders of the world, the stone ones, was owing to the invention of the arch, which was first employed for roofing their chambers. There seems to be great reason for admitting this ingenious hypothesis, which would take back its invention to about 2300 B.C.; and it is not probable that its origin could date earlier in any other country. But, as in many cases, the real invention is still a question, all we can ascertain is, that those to whom it has been generally ascribed lived long after it was commonly known; its originator is unrecorded; and we may be satisfied that it is wiser to adopt from others what is capable of being applied to a useful purpose, than to be perpetually striving to produce "some new thing" for the sake of novelty, or for the credit of its invention.

77. The early masters of Italy were not too proud to derive hints from each other; the favourite treatment of some one figure was constantly repeated by them; and a particular mode of representing subjects may often be traced to a Byzantine original. So too Raphael did not object to borrow from Masaccio; and like the Greeks of old, in adopting what was beautiful in the works of others, in order to improve his own, he thought excellence of more importance than originality.

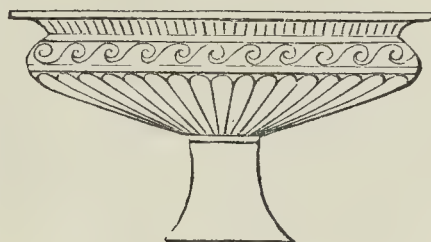
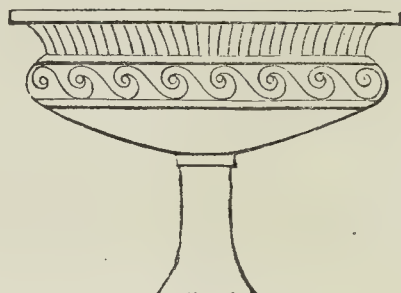
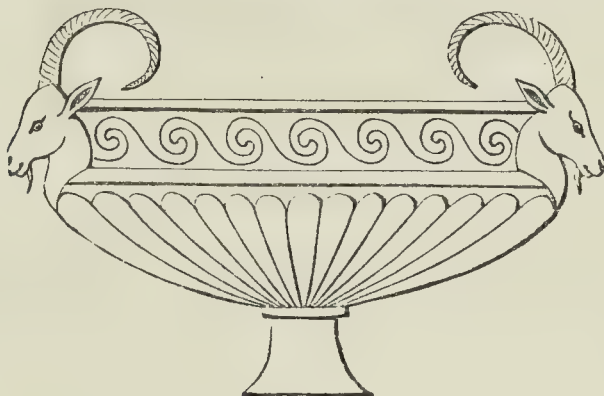
The Greeks, however, in copying from those who preceded them, had not always the honesty to acknowledge it; and made up plausible tales to conceal the obligation, as in the case of the Corinthian capital, and the Telamones, Hermes, and Caryatide figures, borrowed from the Egyptians; and numerous arts were claimed by the Greeks which had long been known, and were derived from other countries. We must

smile at the idea of the flutes of the Ionic representing the drapery of the female figure, of which the column itself (more slender than the "masculine Doric") was said to be a symbol; and at the many other fanciful tales, ingeniously devised, to prove originality. And while we admire the story of the tile and basket, with the acanthus leaf, put forth to account for the invention of the Corinthian capital, we cease to admit its truth on finding how its oldest forms, which occur on the columns of the tomb called the Treasury of Atreus at Mycenæ, and at the tower of Andronicus at Athens, were simply the basket capital of Egypt. And the pretended origin of portraiture, or modelling in relief, from the lover's face on the wall copied by the daughter of Dibutades of Sicyon, is only another pretty story. The capital we know as the Corinthian should properly be called the *Greek Composite*, composed as it is of the *original* basket and the Ionic volutes; and in it we see how admirably the tasteful Greeks combined the volutes, and how badly the Romans applied them in their ponderous and ill-proportioned Composite order. We no longer believe, with Pliny, and some modern Hellenists, that many of the earliest inventions were of Greek origin; that men under fabulous names devised them in Greece ages after they had been common in older countries; or that various scientific discoveries, known long before to the Egyptians, and even canal-making, were taught them by their pupils the Greeks.* Their claims, duly catalogued by Pliny, are amusing to us in these days;

* It must not, however, be supposed that, though Greece borrowed from Egypt some notions in matters of early taste, she was indebted for her religion to that country; many resemblances in the two religions were owing to their having had a common origin; and they also may be traced in the Vedas without our concluding that Ouranos was *derived* from Vurana, or that other mythical personages came from India. And if Greece adopted the characters and even names of some deities from Egypt, as Themis, from Thmei, and others, this was only a custom common to Paganism, and one which was adopted sometimes even by the Egyptians.

possessing, as we do, the means of tracing the successive development and comparative antiquity of so many early people; and we are not surprised that the Egyptians should (as Plato tells us) have looked upon the Greeks as “children” in the world’s history, without “any ideas derived from remote

(48.)

*Fig. 1.**Fig. 2.**Fig. 3.**Fig. 4.*

tradition, or any discipline existing from an early period.” Indeed, from their forms, as well as their details, many of the gold and silver vases represented in Egyptian paintings, as early as 1440 B.C., might almost be attributed to Greek workmen* (see woodcut 48); and it would be interesting to trace the various types and ornaments which were borrowed by the Greeks from Egypt and other countries; but the subject is too

* See my “Egyptians in the Time of the Pharaohs,” pp. 42—47; and pp. 154—161.

extensive to be fully examined here; and it will be sufficient to notice the earliest instances of some of those with which we are most familiar*, as the so-called Tuscan border (*fig. 1*), the zig-zag (the chevron of later days), the scroll (*fig. 3* and woodcut 48), the volute (*fig. 3*, and woodcut 45), and the intersecting circle, (*fig. 4*), which are found, with many

(49.)



Fig. 1.



Fig. 2.



Fig. 3.



Fig. 4.

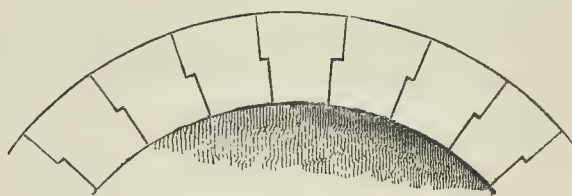
others, in the paintings of the Egyptians executed about 1400 years B.C.; and the first four more than twenty centuries before our era.*

The Tuscan border seems to have been a very general design at all times and places, being found also in China, in Mexico, and other countries; but the origin of several patterns on Greek vases may be traced from those peculiar to Egypt* at a time when it was the dominant country of antiquity, and was looked up to as the most advanced in civilisation. Thus the lotus, the ibex, leopard, ape, Nile-goose, and other animals unknown in Greece, as well as the Sphinx, the harpy, and other conventional creatures which derived their origin from Egypt, were common on the early Greek vases.

* See my "Ancient Egyptians," vol. ii. p. 125, Pl. VII. figs. 4, 6, 7, 14, 20.

In like manner, the chevron, so frequently seen on vases, ceilings, and elsewhere as an Egyptian ornament, and which appears even as an architectural moulding throughout Diocletian's palace at Spalato, along the whole entablature and on the plinths of the columns, was adopted by the mediæval architects, particularly in the Norman style, together with other devices;

(50.)



and the notched stones of voussoirs, so frequent in Saracenic buildings, were of Roman origin, being found in the same palace of Spalato, and in other buildings of the Empire.

78. It is thus, throughout the history of art, that *one style borrows from another*; and the proof of talent consisted in a proper adaptation of each particular feature. Those who maintain that the early Greeks derived nothing in art from foreign nations, seem to ignore the influence universally exercised by the more advanced on those who have made less progress in it. Yet all history and experience proclaim this, as well as many of the Greeks themselves. The shield of Achilles is described from no Greek model; and, like similar works of the Homeric age, it was probably derived from some work of the Sidonians, who, like the Egyptians and others, had excelled in various branches of art long before they became known to the Greeks. And it was to their contact with other people that the Ionians were indebted for an earlier advance in art, compared to their brethren of Greece.

79. Indeed, it is impossible to look at the ornamental designs on many of the bronze and other objects found in Assyria, Etruria, and other countries, without at once per-

ceiving how they were influenced by the types prevailing at those periods; which sometimes bear the stamp of an Egyptian, and sometimes of an Asiatic, origin. The Egyptian type is always sufficiently evident; the other is probably Phœnician; and this is only what might be expected from the statements of ancient writers, who represent the Sidonians as the great manufacturers of bronze and other ornamental works. They were also the great exporters of those days; and as we frequently meet with the same designs on pateræ and various objects both in Etruria, to which they traded by sea, and in Assyria, with which they traded by land, we may safely attribute to them the same origin. Nor is there wanting abundant proof of the intercourse of that trading people with Nineveh. Again, similar designs are occasionally found in Egyptian paintings representing vases and other things, brought home or captured by the Pharaohs in their Asiatic wars; and it is therefore reasonable to conclude that these and other designs used by the Assyrians were Phœnician; and that those supposed to have been taken by the Greeks from the Assyrians were from the same source. And though the sphinx, the scarabæus, the lotus, and many conventional emblems were derived from Egypt in the first instance, we at once perceive how they were altered by the Phœnicians; and how the sphinx, with recurved wings, which became so prevalent on early Greek and Etruscan works, was the Phœnician modification of its Egyptian prototype.

The greater part then of those early designs, common to Etruria, Assyria, and Greece, which have not a real Egyptian character, may be attributed to that great manufacturing and trading people; and the name Phœnician, formerly given to the oldest Greek vases, may not be altogether without authority; though it should rather be applied to the patterns than to the vases themselves. Similar facts tend to prove the exchange of ideas in taste and customs, which took place at these re-

mote periods, as well as their transmission from an older to a later people.

80. One great merit is to *improve* on what is borrowed. We excel the Chinese in the use of the compass and of gunpowder; though they were acquainted with both of these long before they came to us*; and there is no disgrace in imitating or adopting what is good. The pointed arch is not less beautiful in a Gothic building because it derived its origin from an older Saracenic one; and the spandril over the Arab arch is arranged with far greater taste than the Roman one it copied, as the Moorish bracket excels its Indian prototype. I am not, however, certain that the spandril of our church architecture is superior to its Saracenic predecessor.

The same derivative system continued through successive ages, and in all countries. Thus early Christian architecture, as might be expected, bore the evidences of its obligation to Pagan models; and neither the form, nor the architecture, of the first churches was the invention of the Christians.

It was thought sufficient that the Church did not imitate the heathen *temple*; and the conversion of a court of law into a place of worship was not calculated to shock religious prejudices. In this respect the Italian Christians were more scrupulous than those of Egypt and some other countries, who allowed a Pagan temple to be converted at once into a church; the saints succeeding, on the stucco, newly spread over the walls, to the gods in the ancient sculptures concealed beneath it.

The Gothic architects improved on the basilica. Our large cruciform churches as *buildings* are beautiful; but it may be questioned whether their plan is as well suited for the object

* Gunpowder was not *invented* by Schwartz, nor the mariners' compass by Gioia of Amalfi. Friar Bacon gives the ingredients of gunpowder long before Schwartz's time; and the knowledge of it, as of the compass, came no doubt from the Chinese.

for which they are intended as some others that might be adopted; and the form of a cross is certainly one of the worst for accommodating a large concourse of people, for enabling them to hear the voice of the preacher, or for permitting a large congregation to join in the services of the church.

81. The debasement of architecture was gradual, and was only the natural consequence of what had already commenced under the Roman empire; the various styles which grew out of it being merely changes in the earlier ones, in different provinces of the Roman empire. They were all modifications of the late Roman; one varying it in this, another, in that, part; according to the taste and wants of each country; and the architecture in Rome itself underwent less alteration than in many of the provinces. For it is an error to suppose that the influx of northern invaders introduced the changes in the Roman architecture: they only borrowed and modified what they took; but did not originate any of their own. They brought with them no architecture; and the grandest palace of Attila was of wooden planks and beams. But without the necessity of this proof that the alteration in the style was of native growth, it is sufficient to examine the changes that took place in Roman buildings of various ages, even before the time of Diocletian and Constantine. The vertical line which (as I have had occasion to show, p. 28) dates as early as the first century A.D., was really Roman; and the long-and-short work of our Saxon churches was the common style of building in villages of North Africa during (and probably long before) the reigns of Justin II. and Justinian. The invasions of the Roman empire hastened, but they were not the *origin*, of the decline of art.

82. The same obligation to older sources led to the revival of sculpture and painting, as to new styles of architecture. Both these (which in a particular stage of art are more intimately connected with each other than at a more advanced period) show, at one time, the evident traces of their

descent; and in the earliest bas-reliefs that remain of a Christian age, we perceive the same kind of transition from the old classical to the debased style which appears in contemporary Pagan works. It has been thought by some that "the *primitive* art of the Christians was rude, because the only schools where they could study were in the hands of the Pagans, and the only models were images of idolatry;" but though this may have had an influence on some of their earliest attempts, and they may have been sometimes obliged to depend on their own unaided efforts "to copy nature," and on their "own primitive notions of the human figure," so long as they were a poor oppressed community; this would not have continued after Christianity had become the religion of the state. Nor does this really account for it; and their faulty attempts at painting and sculpture are rather to be attributed to a general want of talent, and the sinking condition of art.

83. Taste had long held a doubtful existence under the Romans; and the people of Rome itself were always remarkable for their want of it. It was there an exotic plant; not one of native growth; and the Romans were indebted for all that was good to Greek artists, or to Greek models. They were even inferior to many other Italians; and the Etruscans, though they too borrowed from the Greeks, had learnt at an early period to appreciate art; and continued to the last to show a degree of talent to which the Romans never attained.

It is also a remarkable fact that the revival of painting and sculpture in the middle ages, did not take place in Rome, but in Florence, Pisa, and other parts of Etruria, which had been of old distinguished for artistic excellence. It was in that country too, as Vasari observes (Introd. pp. 26, 29), that architecture first began to improve after the dark ages. We already see in the reigns of Diocletian and Constantine how rapidly sculpture was declining (much more, as is usual, than archi-

itecture, which is less dependent on the feelings, and more easily kept up by imitation): and the style of Christian bas-relief, in those and subsequent periods, shows that they kept pace with the gradual downfall. This is quite in accordance with an observation of Vasari; that in the time of "Julian the Apostate, a church was built on the Coelian Mount to the martyrs, SS. Giovanni and Paolo, the style of which is so much worse than that of Santa Maria Maggiore as to prove clearly that art was at that time little less than totally lost." It was from the general decay of taste, and afterwards from the injury done by the irruptions of Barbarians, rather than from any reluctance to copy from a Pagan source, that the sculpture and painting of the early Christians were so debased; and this is evident from some of the oldest representations remaining in the catacombs of Rome, and in other places. It is true that the subjects painted on the roofs and niches in the Catacombs are taken mostly from the Old Testament, according to the custom of the first Christians; and we do not trace in them so much of the Pagan style; but the figure of the Saviour as the Good Shepherd is evidently derived from an ancient model; and another representation of him in the same office, dating at a later period (A. D. 450), in a mosaic of Galla Placidia's tomb at Ravenna, has an unmistakeably classical character.) And even the Anglo-Saxon MSS. in this country bear, in some of their figures, the evidence of their obligations to Roman originals. (See below, § 84, p. 309.)

The same imitation of a Pagan type may be traced in the earliest Christian sarcophagi; and in the Baptistery at Ravenna, dating about 400 A. D., and again at Santa Maria in Cosmedin in the same city, erected in the following century, is an emblematic figure of the Jordan, represented as an ancient river god, witnessing the baptism of the Saviour. The imperial purple and the Roman costume given to saints;

the angels copied directly from the winged figures on Greek and Roman monuments, and having a still stronger analogy with those of the Etruscan rites (where they held an important office in a future world), are also among the many proofs of the Christians having borrowed in very early times from Pagan sources. There is also a very remarkable piece of sculpture on wood, of the time of Diocletian, on a frieze and cornice over the door of a church at Old Cairo, where the Deity, seated in the centre, within a circle, supported on either side by winged angels, with a procession of the apostles, six on each side, is an evident imitation of the winged globe over the doorways of Egyptian temples. Again the Egyptian sign of life, the sacred Tau, was taken as the earliest form of the cross. It has even been found on Roman monuments in Italy and France; and in the Christian tombs at the Great Oasis it heads the inscriptions in lieu of the usual cross. Nor can any one look on the figure of Isis and the infant Horus without recalling that of the Madonna with the Child.

It is true that one of the earliest modes of representing the Virgin in Italy was without the child, with her hands uplifted as in an attitude of prayer; but its first introduction, as Mrs. Jameson says (p. 63), "may be traced to Alexandria," and "the time-consecrated Egyptian myth of Isis and Horus may have suggested the original type, the outward form and the arrangement, of the maternal group, as the classical Greek types of the Orpheus (of Mercury), and Apollo, furnished the early symbols of the Redeemer as the Good Shepherd." The nimbus, or glory, was, in like manner, borrowed from Pagan times. It was originally the disk placed on the head of the Egyptian god Re, the Sun, and having been transferred to Apollo, or Phœbus, who answered to him in Greece, passed to various gods and men, and thence to Christian saints; and if in India, Greece, Etruria, and Rome, the circle was sometimes broken up into rays, the idea was the same. It

was sometimes placed horizontally on the heads of Greek statues, to prevent their being defiled by the birds. But it was not absolutely confined by the early Christians to saints, though that with the cross within it was peculiarly set apart for figures of the Saviour: it was sometimes placed on the head of the principal personage in a fresco, or a mosaic*, as of Justinian and Theodora in the mosaics of S. Vitale at Ravenna. It is even given to Herod at the slaughter of the Innocents in a very early painting in an Egyptian rock-church; and living persons had sometimes a square nimbus.

These and many other facts suffice to prove that Christian art followed the general custom of borrowing from a predecessor; and though it was at first of a debased style, this was not because it scorned to copy from Pagan models. It was inferior, because its models were inferior, to those of old; it copied, or followed, its predecessor; and did not originate, though it altered and modified what it borrowed, and it was not till afterwards that it created a new type.

84. Paintings in fresco were more employed by the first Christians than sculpture; and the earliest that remain at Rome are in the Catacombs. The mosaics put up by order of Constantine were executed by workmen instructed in the then existing arts of Pagan Rome, and cannot properly be included in the works of the Christians; and those of the so-called Baptistery of Constantine have no cross and no Christian emblems.

The early sculpture of the Christians, which was of rather later date, was mostly confined to bas-relief; and here we distinctly trace the influence of Pagan models. But primitive Christian art, both in painting and sculpture, derived, as I

* In a painting at Pompeii (Gell, Pl. xxxix. p. 135) a round shield placed behind Achilles has been thought to perform the same office. See also Pl. xxxviii. xli. lxxx. vol. i. Inghirami Galler. Omerica, where the deities have each the nimbus, and they are not of Pagan time.

have said, from their Pagan predecessors, became at one time extinguished in Italy; and it was not till it received a new impulse from Byzantium that it was once more brought into existence; its revival, therefore, was owing to that external influence, which may be considered the real parent of Italian art. Like that of the primitive Christians in Italy, Byzantine art, though assuming a new type, also owed its origin to the debased style of its Pagan predecessor; for a similar obligation to an older source must be acknowledged by the Byzantine as by other schools.

The same may be as clearly traced in the MSS. of the Anglo-Saxons; who were not deterred by their Christian prejudices from copying Pagan models; and we occasionally find classical figures introduced there, having all the characteristics of late Roman art. They had access to Pagan drawings, and they took advantage of them; and the fact of some figures being introduced into the same picture and the same subject, together with others of a rude, ill-proportioned style, at once show how the former were copies, and the latter the result of the draughtsman's unaided and imperfect efforts. And instances of similar combinations of classical and rude figures are found in Byzantine MSS. of about 1066, 1120—30, and other periods. The jagged outline of a sleeve, or other piece of drapery, in Anglo-Saxon MS. of about the year 1000, prove that the draughtsman either made a careless copy, or had received the general impression of the classical mode of representing draperies and costumes, without possessing sufficient knowledge either of the classical manner, or of the natural folds, to be able to draw them correctly. The outlines are therefore broken up into those disconnected curves which so strongly mark Anglo-Saxon drawings, and very much resemble an imperfect tracing penned from recollection by some tyro; detached parts being introduced instead of the continuous lines and folds. The same may be seen at the side

of a draped figure, where the connecting lines are omitted, and the jagged edge is represented alone (*figs. 1 b, 2 b*); and this was partly owing to the form of the drapery having been

(51.)



handed down from one to another until its original character was lost. At first, in the early MSS., the antique type was frequently well preserved; but in course of time, as each copied from a copy, the draughtsmen departed farther from

the original, till the lengthy formal figure quite superseded the classical; and the Bayeux-tapestry-style of the Normans put an end to all vestiges of the older style.

In the Anglo-Saxon MSS. the adoption of the colours prevalent at a late and corrupt Roman time may also be traced in the quantity of undecided green* then introduced, often with much yellow and a brownish red†; and this is made more obvious by the subsequent change to the blue, red, and yellow (with a rich gold ground), in the MSS. of the 1100 and the following century; corresponding, as they do, with the colouring of the windows of that period, both in England and France.

85. It has been a question whether the employment of the Byzantine mosaicists gave the first impulse to the *revival* of art in Italy, or whether it was restored by the unaided efforts of the Italians themselves. Some, like Cicognara‡, maintain that the arts were never so debased as to need restoration from abroad; and he goes so far as to maintain that the mosaics of the early churches of Italy were the work of native artists (Stor. della Sc. i. p. 475, 476); though both tradition and the evidence of their style are conclusive respecting their Byzantine origin. Vasari, on the other hand, admits that sculpture and the other arts had fallen to decay in the time of Constantine, and that art was little less than totally lost in the reign of Julian, and was buried completely during the invasions of the Goths and Vandals. He also shows, in his life

* Of about 1000 A.D.: the same prevalence of green is often found in German MSS. also of the 1100.

† See Cott. MS. Tiber. B. 5, and others.

‡ Cicognara is apt to claim too much for Italy in those days. He even attributes the Pala d' Oro, at Venice, to Italian, though it is well known to be the work of Byzantine artificers, and to have been executed at Constantinople, by order of the Doge P. Orseolo I.; "the portrait of Ordelafo Faliero having been added when it was brought over in his dogeship, in 1102. Its Byzantine origin is also shown by its style and Greek inscriptions.

of Cimabue, how, before that time, in Italy, painting had been “piuttosto *perduta* che smarrita;” and that Cimabue learnt by watching the Greeks at work in the Cappella dei Gondi, and studied under them. He also observes that the Greeks were employed all over Italy to decorate the churches and public buildings, until Cimabue, followed by his scholar Giotto, and others, in painting, like their contemporaries the mosaicists, having first learnt of the Greeks, afterwards worked independently, and established a new and truly Italian style of art. D’Agincourt too (in his 4th vol.) gives a regular history of this progress through Byzantine hands, illustrated by examples in each century. We find the same observation made by Flaxman (Lect. p. 146, 242), that Italian art was received from the Greeks of Constantinople; and the fact is still more confirmed by this statement of Rosini (vol. i. Proemio):—“Per edificare, per iscolpire, per dipingere, non si proponevano che Greci . . . ciò che negar non potrebbe, perchè appare da documenti certi, la pittura sul cominciare del Secolo XIII. mantenevasi Greca. V’ erano sì, come narrano tutti gli storici, e v’ erano stati anchè, antecedentemente, Italiani pittori; ma senza lasciar nome illustre, senza far degne opere, e molto meno senza procurar degni allievi.”

86. The history of mosaic work is a good illustration of the manner in which so many arts have been indebted to each other for their development; having alternately excelled and declined, and been afterwards revived by the country of its adoption. Pavements of various coloured marbles were used in Greece as early as the age of Alexander, which were probably the same as those mentioned by Hesiod and Xenophon; and the ship of Hiero II., described by Athenæus (v. 207), had floors composed of real mosaics, or, as he says, of small cubes of all kinds of stone. From Greece the art went to Rome, whose earliest mosaics were the work of Greeks; and the in-

scriptions on the celebrated pavement of Præneste, placed in the Temple of Fortune by Sylla, were Greek. At Rome, the mosaics soon passed upwards, as Pliny says quaintly, from the floors to the ceilings, and took possession of the arches; and when glass was used for the purpose, cubes of that material were faced with gold, to form "the golden vaults," as well as pavements, of Roman mansions. Silver mosaics were also made at Rome. But they were not used by the Greeks, though they had at an early time another custom, common at Rome, of encrusting with coloured marbles, which was adopted from them by the Romans. The golden ceilings and silver beams of the King of Colchis (said by Pliny to have defeated Sesostriis) may not have been mosaic work, but it is not unlikely that it originated in the luxurious taste of the East.

The first inlaid pavements are said by Pliny (xxxvi. 25) to have been "barbaric;" and the Asiatic nations have the merit of their earliest application. The Greeks employed mosaics for pavements; the Romans both for pavements and ceilings; and these last continued to excel in the art, until the removal of so many workmen to Byzantium by Constantine raised a rival school in the new capital. This soon surpassed its parent; and the Byzantine mosaicists frequently assisted in decorating the early churches of Rome, until, in the age of Justinian, they were regularly employed in Italy. Of this age are the mosaics of S. Vitale, at Ravenna. The iconoclastic dissensions in the 700, which drove so many from the East, increased the number of Greek artists in Italy; and taste having fallen there altogether, the Greeks, during a considerable period, as I have already shown, were exclusively noted for decorative skill. The rich mosaics of Ravenna, of Rome, of St. Mark's at Venice, and of other churches in Italy, still claim our admiration, and bear witness to the talent of the Byzantine workmen, and to their extensive employment; and the piratic conquest of Constantinople by the

Venetians and the French, in 1203, tended to keep up the intercourse long before established with the Greeks. Nor was it until the Tuscans, by employing Greeks settled at Venice to decorate their churches, had learnt the art, that mosaic work began to be once more practised with success by native Italians. At the beginning of the 1300 the Tuscans founded, for the first time, a mosaic school of their own, which speedily improved on the too conventional style of their instructors, and changed it from what was scarcely more than a manufacture* to the condition of an art. And thus, what had once passed from Greece to Italy, then back from Italy to Byzantium, and thence once more to Italy, reached its highest excellence in this last country, and has now left behind it nothing in the East but the decoration of walls, such as are seen in the brilliant vaulted rooms of Damascus and Aleppo.

There is abundant evidence of Byzantine art in Italy. The mosaics of the triumphal arch of Santa Maria Maggiore at Rome, of A.D. 432, are Byzantine; as are those at Ravenna of the same and two following centuries; and those of the Triclinium of Leo at Rome, on gold ground, of 797; and of Santa Pudenziana and Prassede at Rome, about 780 and 820; of S. Ambrosio at Milan, of 836; and of St. Mark's, at Venice, of the end of the 900 and following century; with some others, are Byzantine; and even in those at S. Clemente (Rome)†, of A.D. 1112, the word *agios* is written over the saints in Roman characters.

The Italians, who had hitherto been contented to imitate the works of the Byzantine mosaicists, began at length to act

* M. Didron found at Mount Athos a work "containing fixed rules for their paintings, supposed to be of the eleventh century," and used to this day. (Labarte, p. 18.)

† The figures of St. Peter, "agius Petrus," and of St. Clement have a very classical appearance, remarkable at this period. (See § 84, p. 310, on occasional classical figures.)

independently of their instructors; and during the 1200, Andrea Tafi, Frà Giacopo da Turrita, Gaddo Gaddi, and others, established the reputation of native Italian talent, in the mosaics then executed at Florence, Rome, and Pisa. A similar advance was made on the Byzantine style by the painters of Italy; who speedily surpassed their masters; and in contemplating the productions of Giotto "people began to form a better judgment of art." Well might Dante say, "Ed ora ha Giotto il grido:" the Byzantine manner was entirely extinguished by the aid of his great genius; and there arose a new one, "which Vasari would fain call the manner of Giotto;" though it must be allowed that Duccio, Simone Memmi, and some others, had their share in liberating art from Byzantine influences. Fresco now (once more) took the place of mosaic; and this was again "destined to perish by the hands of those who had carried it to perfection,"* and to give place to its "too powerful rival," painting.

Thus, then, it must be admitted that the obligations of early Italian to Byzantine art are sufficiently established; they are readily traced in the works of the oldest Italian masters, as in those of Giunta, Guido da Siena, Cimabue, and others; who, if they improved upon Greek models, did not wholly abandon them; and with the evidence of this impress on the works of the well-known fathers of painting at Pisa, Siena, and Florence, no one can, with any fairness, doubt the cause of the revival of art in Italy.

There were two periods of Christian art in that country, separated from each other by an interval of complete darkness. The first was of an inferior character, the result of the *decadence* of an older Pagan style; and it simply followed the condition in which painting happened to be when the subjects in the Catacombs of Rome, and in other places, were executed.

* Labarte, p. 94.

The other period was that which has been mentioned above, when it revived through the works and tuition of the Byzantine artists, after the irruptions of the Barbarians had caused that complete hiatus in art which continued till its restoration in the 1200. For after 800 A.D. to 900 Italy was altogether destitute of it; and Muratori, speaking of the utter degradation of art in the 900, calls it the iron age, full of iniquity and barbarism. Tiraboschi also considers the same period to be one of universal ignorance.

Thus it is that art, as well as science and literature, goes through certain stages of decay, till it arrives by degrees at a state of regeneration. Men are at first contented to copy, often imperfectly, and merely traditionally, from one another, each deviating more or less from the original models in proportion as he is more or less capable of appreciating them, and in proportion as the copies he has received have been well preserved, or modified and corrupted by passing through successive hands; until at length a new impetus is received through some accidental cause: and then, some great genius arising, the style hitherto imperfectly and almost mechanically copied, is remodelled, and a new one is produced, which is the beginning of another era. As of old in Greece, so it happened in Italy; and as soon as native talent reappeared there, she worked out for herself the perfect restoration of art.

Early in the 1200, Giunta da Pisa (1202-1258) and Guido da Siena (1221) began to combine an Italian with the Greek style; and after them the independent talents of Duccio (1282), Simone Memmi (1285-1344), and others of the Siennese school, produced works free from any Byzantine influence; and if this was still traceable in most of the works of Cimabue (1249-1302), and some other Florentine masters of that early period, the wonderful talents of Giotto (1276-1336), who excelled in painting, sculpture, and architecture, the happy appreciation of antique sculpture by Niccolo Pisano (1205-

1275), and the abandonment of the conventionalisms of the Byzantine Greeks at the close of this century, established the character of Italian art; and whatever its obligation to that of Byzantium, it is certain that this last could never have become what the other so speedily made itself,—attaining as it did to the great merit of surpassing the excellence of ancient Greek painting. Indeed, it is remarkable, that though painting in Italy advanced to a state of perfection, this was denied to sculpture, which has always been inferior to that of ancient Greece; and when classical taste was revived in cinque-cento time, it allowed itself to be fettered by a too slavish imitation of Greek models (*see* p. 200). And in this last, as in some other cases, we have ample proofs of the fatal error of merely imitating, instead of studying the sentiments of, ancient models. Talent is thus hampered at a time when it ought to be left free to develop itself; and the beauties of the Norman, the Gothic, the Saracenic, and other styles of architecture, would never have existed if they had only copied, without being permitted to remodel, the ideas they borrowed from a predecessor.

We have seen how this has invariably occurred in the history of art; and we cannot too often, or too strongly, recommend the same mode of studying and adapting, in preference to mere imitation, or to the vanity of attempting to invent some novelty in taste. There is therefore greater reason to point out the extent to which early Italian art was indebted to the Byzantine Greeks; as it shows how little derogatory is the obligation to a foreign, or an older source, for the suggestion of ideas in such matters, and affords a striking illustration of the manner in which one style of art borrows from, and in re-creating improves upon, a predecessor.

87. It is generally allowed that the religious sentiment has been intimately associated with the highest art. The remark is just as far as it applies to the representation of subjects

connected with religion; and paintings attain the most elevated character through that sentiment. But though sacred subjects are those that belong most properly to the highest branch of art, still they are not the only ones in which great artistic genius may be displayed; nor in Greek sculpture are the finest statues *confined* to the representation of the gods.

What the paintings of the Greeks may have been, which treated of heroic, and other noble, actions, we are unable to decide; but it is certain that one of the finest statues (which too is not of an old Greek period, and is open to the same objection as all other painful subjects), the Dying Gladiator, is not connected with religion; and others of no ordinary pretensions might be mentioned which are quite independent of mythological belief. And the same may be said of the Laocoön, as well as some other groups, and single statues.

Of Italian paintings, the grandest are certainly sacred subjects, which were constantly called for by churches and convents; and as the Franciscans and Dominicans encouraged the labours of a Giotto and a Frà Angelico, and the churches and convents continued at a later period to require paintings of a religious character, so the theocratic establishments of Spain employed the skill of a Zurbaran, a Murillo, and other artists of that country. The *number* too of those subjects painted by the best masters is greatly in favour of their being superior to others; but the fact of their possessing this superiority does not confine perfection to them alone. For no one will deny the merits of Raphael's School of Athens, and other subjects not, strictly speaking, sacred; and those taken from poetry and history claim a sufficiently important place in high art to convince us that an artist may attain excellence, even if he quits the range of religious compositions. Other subjects may not be capable of an equally

elevated treatment with these last, not having the same refined sentiment as those connected with religion; but will any one suppose that the noblest actions of man towards his fellows, the records of glorious deeds, and the events of history, or of private life, offer no grand fields for the talents of a painter? Success depends on the talent of the artist; and where are any sacred compositions of the *present day* to be compared to the works of Paul De la Roche, though he has not always the merit of selecting his *subjects* with good judgment? It was the decay of taste that lowered the condition of art. It deteriorated, not because the religious sentiment was exhausted; but from many other causes which combine to make it decline, as others have done to make it flourish, at particular periods. Whether it can be altogether revived is a question; but let it not be pretended, as an apology for inferior works at the present day, that religious feeling is not so strong as of old. It is an excuse, not a reason. A certain kind of religious fervour may not be as strong as in ancient Greek, or in mediæval, times; but unless superstition be confounded with religion, there can be no denying that real religion stands now on a far more exalted basis than of old; and it would be a sad reflection if idolatry, or the enthusiasm of a less civilised age, were absolutely necessary for high art.

Some indeed have had the folly to maintain that Protestantism is incompatible with elevated expression in sacred subjects; and the natural conclusion would then be, that the country most remarkable for it—Italy—has been superior to all others in religious feeling. I leave the French, Spaniards, and others, to reconcile this superiority in one compared to other Roman Catholic countries, while I deny the incompatibility of Protestantism with high art. Is Paganism necessary for good sculpture? is the flourishing condition of art dependent on a particular kind of religion? were the

Egyptians, Indians, or Romans less enthusiastic in their religion than the Greeks? and were they more religious at Rome in the Augustan age than during the Republic? It is not given to every people, nor to every age, to arrive at excellence; though they may have the same enthusiasm and the same religious notions. Art and taste will decay in spite of these; and the most enthusiastic Christian, or the most superstitious Pagan, will not then attain to the same elevated expression, or the same excellence in art.

Protestants may not have the same number of personages they would wish to represent, and they may not have the same variety of legends; but the Bible and Testament subjects are equally open to them; and when we see the works of their sculptors from Denmark, England, and America, we find that in one very important branch of high art they attain to an equal excellence with any people of modern times. Again, the most elevated sentiment is required for sacred music. Is this too denied to Protestants? if so, how came it to be displayed in its most exquisite and powerful form by those unrivalled composers who were Protestants? Here again they are not wanting in those feelings which are most required for attaining to excellence. And why is art not as flourishing now in Italy, and other Romanist countries, as formerly? It is not because "the world has become Protestant;" but because art, having reached its culminating point, declined, as it had done before in Pagan times.

The external forms and customs of some religions have encouraged art, by requiring paintings and sculptures for sacred buildings; and the best statues have been those made for Greek temples. Religion has thus been a promoter of art, but not necessarily its *sole* promoter. It is also true that enthusiasm and feeling are necessary for the highest excellence in it; and that religion affords much of both these elements of success; but they are not confined to it; nor

is religion the *necessary* cause of the perfection of art. So too the downfall of art must be attributed to other effects than a peculiar state of religion, or a particular creed. There are periods when arts flourish, owing to various causes; and there are periods when they decline. The feelings of affection may be touched by poetry; the religious and martial enthusiasm may be roused by music; and some think that devotion is aided by a particular kind of architecture; but real love, religion, and valour, exist without such a stimulus; and sincere enthusiasm has no need of artificial excitement. It is the true feeling of the heart and earnestness that the artist requires for his work, and without these he can never hope for success.

One great *encourager* of art has always been patronage, and this affects the quality as well as the quantity of its productions. And as the demand for good works depends so much on the judgment of its patrons, it is of the highest importance that the *general taste* should be capable of selecting such as are deserving of encouragement.

88. Great injury was done to painting by the false taste of covering a large expanse of canvas with many and enormous figures; but more still by the rage for portraits, which came into greater favour in the decline of art; of which they were a sign; as Roman busts were of a deficiency of taste for sculpture. For though, as Pliny says (xxxv. 2), every one appreciates these records of his ancestors, and is curious about the appearance of great men, as Homer and others; such portraits, whether in stone or in painting, have their merits chiefly as mementoes; which is the excuse for very indifferent pictures of "ancestors" holding a place in our modern houses. It is true that portraits of individuals were introduced even into sacred subjects by early and first-rate masters, but in subordinate positions; and there were many of a patron or a friend. They were not, however, the staple of art; nor

were the artists merely portrait painters, who painted nothing else, because the occupation paid well, while it gave little trouble to the mind. And if a Titian, a Vandyck, a Rembrandt, a Velasquez, and others have left most exquisite portraits, they did not make portrait painting their *sole* aim; and their portraits are not mere representations of the individuals; they are *real pictures*. The variety of wealthy patrons increased the evil, while it proved the power of patronage.

Again, when painters ceased to give an ideal face to the Madonna, and copied it from some real person, they introduced a less exalted feeling into their works. Nor does this apply only to sacred subjects; and the same fault would be committed by allowing the portrait of Mr. Smith to represent Achilles, instead of the ideal figure which should convey an impression of the hero.

So with all ideal beauty*; and, as Savonarola says, "it is in something beyond what we see that the essence of supreme beauty must be sought for; the beauty of the body depending in a great measure on the beauty of the soul." Even in representing real persons, it is not enough that the likeness should be a mere copy; it must give the characteristic expression of the individual; and Lysippus was right when he prided himself on making statues as the persons *appeared to be* (*quales viderentur esse*)†, while others made them *as they were*. Sophocles too said he described his personages as they ought to be, Euripides as they were; and Aristotle (*Poetic.* c. 25), who mentions this, adds, that "a poet should describe them according to general opinion,

* Some deny the possibility of *ideal* beauty, and say that in a human figure we can only represent forms we have seen, and the expression we have witnessed; the Greeks and others, therefore, in order to give an idea of grandeur, often went beyond the bounds of possibility, and made their figures of gods colossal. But the objection seems rather to the term than to its meaning.

† Pliny (xxxv. 10) seems, however, to combine with this a certain notion of conventional treatment. (*See above*, p. 184.)

as in the case of the gods:" *i.e.* as ideal beings. Nor in copying from nature is it sufficient to make a "dead likeness" of any object; and we do not require a fac-simile or a portrait of it. "Very rarely," says Professor Hart, "in the chiefest of these (Italian) masters do we observe the imitative capacities of art occupy any prominent or undue share of attention. Such imitation was by them regarded only in the nature of a language. By these great artists it was considered as a means—rarely as an end. In few of their works is our attention divided by the consideration of the degree to which special truth has been imitated; rarely in their works do the representations of facts divide our attention, or distract it from the theme. Neither are there to be discerned those egotistical displays made to court our admiration for the artist's own personal ability. It is to the introduction of these lower elements of the painter's craft that are to be assigned some of the reasons for the decline of powers that long had almost the exclusive privilege of instructing and improving the minds, as well as of increasing the religious devotion of the then most civilised portion of the human race."

89. Another sign of deterioration in the condition of art was the undue importance attached to landscape, and to scenes from common life; for which, though great observation and a considerable poetry of treatment were necessary, the same imagination and power of mind were not required. The greatest masters rarely, and never exclusively, occupied themselves upon landscape; and though Titian could treat it so admirably, and others occasionally painted landscapes (not always very successfully), they never allowed their talents to be devoted to it in preference to the higher branches of art.

I do not, however, mean to detract from the merit of those artists who have *excelled* in landscape, or in any other branch of painting. We have indeed many most eminent landscape painters, whose talents have shed a lustre on the English

school (which too holds a high position among those of modern Europe); I allude to the general *prevalence* of the taste for landscape, which, like portrait painting, though good in itself, should not be patronized by preference, nor be the loftiest aim of any school. (*See Part I. p. 17, § 13.*)

90. It is superfluous to say that every student in painting ought to appreciate the feelings of the best masters; and while studying nature, to observe how they studied her, as well as to mark their freedom from that affectation which so often offends us in the compositions of the post-Raphaelite artists; where extravagant attitudes, a profusion of intrusive arms and legs, an unnecessary crowd of figures, wind-blown drapery, and false effects, are offered as beauties. But this appreciation and study of good art are not confined to painting; they are also required of every one who has any pretensions to excel in ornamental design; and it is vain to hope for success in this, unless talent extends beyond the mere copying of patterns, or even of the human figure. Until proper knowledge and taste have been obtained by those who profess to make designs, we shall continue to find in the same piece a mixture of good and bad; of passable execution, and composition, in one part, and figures totally out of all keeping and proportion in another; as in some of the carved works exhibited at the Crystal Palace of 1851.

91. Those who think that their acquirements as artists would be lowered by their condescending to decorative work, or to ornamental design, would do well to remember that neither a Giotto, nor a Raphael, thought himself degraded by a similar employment of his talents; and that, by improving the general taste, they would promote a greater appreciation of the beautiful. For the occasional possession of it by individuals is not sufficient*; nor is it enough that

* "To love the beautiful in all things," as Sir E. Bulwer Lytton well observes, "to surround ourselves, as far as our means permit, with all its evidences,

beauty should be seen in one particular branch of art; as no one can be said to possess real taste for architecture who is rapturously fond of one style alone, and sees no merit in any other.

The Beautiful is of all styles. But to judge of beauty in art requires other perceptions besides those necessary for judging of beauty in nature; and any one may be able to appreciate the latter without being capable of perceiving the former. He may admire beauty in a woman, and yet be unable to appreciate that of a statue, or a picture. Those too who can judge of form may be, and often are, insensible to the harmony of colour. Some persons, especially in Italy, are gifted by nature with a greater perception of the beautiful than others, and this gift may be greatly improved by culture. Others, again, are deficient in, and are totally incapable of acquiring, it; and it may be doubted whether any one entirely devoid of the natural gift can acquire it. To judge of beauty in painting and sculpture requires a considerable amount of study and habit; without which, the highest style of art is never fully appreciated. The generality of mankind neither enjoy nor care for it; and it is certain that the uneducated eye understands and welcomes the most simple copies of every-day scenes. Drawing too is more intelligible to it than a coloured picture. Go one step farther, and you find that the ignorant peasant of the Nile, who cannot distinguish, in one of our coloured paintings, a man from a horse, and is puzzled by our shadows and foreshortening, comprehends all the stiff figures of the ancient tombs; showing that to be the mode of representation natural to the untutored draughtsman; while the other requires study and the cultivation of taste.

92. It has been thought by some that the Greeks paid not only elevates the thoughts and harmonises the mind, but is a sort of homage that we owe to the gifts of God, and the labours of man." (*The Student*, p. 269.)

more regard to form than colour; but it is difficult to decide this from our limited acquaintance with the subject. From the little that remains of their colour, we see that they neither disregarded nor misunderstood it; of their paintings we can form no adequate appreciation from the imperfect and inferior specimens which have been preserved; and if they considered their painting equal to their sculpture, we can scarcely venture to oppose an opinion, founded upon a want of evidence, to the judgment of men of unquestionable taste.

93. It has often been asked, "What is *the beautiful*?" and various definitions of it have been attempted; all equally unsatisfactory. Nor does Winckelmann's remark, that it is easier to say what it *is not*, than what it *is*, assist in the solution. But it is not only difficult, it is useless, to attempt a definition. "The beautiful" may be felt and perceived, not explained by words; and he who does not understand it without a definition will never understand it with one. Is it necessary to define what we perceive by the senses? As well might we attempt to define colour to the colour-blind as beauty to one who cannot perceive it.

It has also been a question whether the beautiful in art must be a reproduction of the beautiful in nature; and some have concluded it to be so, without perceiving how far it is influenced by the imagination; and how necessary *ideal* beauty is for carrying it to perfection. Besides, many beautiful creations of the imagination, as conventional forms, architectural and ornamental designs, combinations of colours, &c., are not derived from nature. That the beautiful is often based on nature's works is true; as in painting and sculpture; but even then it is not sufficient merely to copy what is seen; the true *feeling* of the original must be given; and the imitative power of the artist is only one of the *means* he employs for conveying his impressions of the scene he represents. "He makes *use* of imitation," as M. Töpffer observes;

and two artists will copy the same subject from nature, and both represent it faithfully, and convey that idea to the beholder; and yet each picture will differ, according to the feeling, the style, and other peculiarities, of those painters.

94. Again, a picture which copies the colour of a scene does not *necessarily* convey a better idea of it than another which only represents it in sepia, or by an engraving. It is not the mere imitation which is required; nor does art consist in that alone. The Chinese imitate wonderfully well, but their imitation is not art; and a figure copied so as to give all the most minute anatomical details, does not on that account alone command admiration: it will perhaps not hold so high a place as one less minutely imitated. The study of the anatomy is a means to assist the artist in drawing the figure; but it is only when the mind knows how to profit by this and other studies, that an artist can make a good picture, or a beautiful statue. Nor is mere minuteness of finish one of the highest merits; and choice of subject, mode of treatment, and other points are essential, as well as proper attention to detail. The eye does not see every brick in a wall, nor does it require the portrait of each to be presented to it in a painting; at the same time that it expects every object to have its true character;—that an oak be distinguished from another tree; and yet without every individual leaf being portrayed. It is not an attempt to represent every thing as a fac-simile that will make pre-Raphaelitism useful “in its generation.” It does not even accomplish what it professes; for the reduction of size renders it impossible to introduce *every* leaf in the tree, or *every* hair on an animal’s back; nor if the space permitted would it be desirable. It will, however, confer a great benefit on painting in this country, where greater attention to detail, as well as careful drawing, is so much wanted; and we already begin to perceive some of its good effects, even in many of those who

are not of that school. When what are called "effects" are no longer the excuse for want of drawing; when shapeless objects enveloped in the obscurity of unmeaning "washes" cease to be considered proofs of talent; when the brush shall not assume too much the place of the pencil; and each tyro shall no longer trust to clouds, and storms to escape from observation (like some of Homer's heroes), we shall feel reason to remember with gratitude the minuteness of the pre-Raphaelite school.

95. There are some cases, in which it is very obvious that the beautiful in art cannot possibly be a reproduction of the beautiful in nature; as in the case of architecture, which is the offspring of the human mind; and it is the more surprising that some still persist in requiring the details of this purely artificial creation to be taken from nature — the inconsistency of which I have had occasion to notice (p. 216).

The custom of copying in architecture from old and even highly approved models, is also open to objection, unless it is done with judgment, and with a proper motive; and some architects have drawn their ideas too much from a particular and favourite style, without considering whether it exactly suited the general character of a building, its position, or the nature of the climate. Thus, in this country, the Greek portico is often appended to a new or a restored house, when it suits neither its style, nor the position assigned to it, and when the porch would be better; (in addition to the latter being a far more appropriate shelter in our climate); and a lofty tower is copied from some public building (for which it was very well suited) and attached to a private dwelling (for which it is ill-suited); no account being taken of its accordance with the character of the house, nor of its effect of making half the chimneys smoke when carried to an unreasonable height above them. Nor are towers always well-proportioned; nor always adapted to public buildings. Some are thin, and out

of proportion in themselves; others are of so extravagant a height as to overwhelm, and spoil, the building they belong to; especially when that building is itself deficient in elevation; and we often hear people eulogise the height, or the number of steps in a tower or a church-steeple, without any consideration of its proportion to the size of the building; as if excellence was only to be measured by feet.

It is not only necessary that the architect should possess all the qualifications enumerated by Vitruvius; he should also be able to adopt, and adapt, hints from the style of other times and countries; but this must be done with judgment; so that when beautiful features are added to a building they may not interfere with the requirements of those who are to inhabit it, or other necessary conditions.

96. The whim of building a Greek house in a northern latitude is much on a par with having one in a dry hot climate provided against the effects of cold and snow. There is no universal style for every country, as there is no universal medicine for every complaint; though there is *one* condition which will apply equally to northern and southern climates—that the walls be thick, being a protection both against heat and cold. How far a particular kind of architecture may be modified so as to suit another country, and other habits, will depend on the ability of the architect; nothing, however, should be adopted from a mere love of imitation, without due considerations of its adaptability. An inferior work may sometimes be improved by an able imitator. But he must have perceptive talent in an eminent degree who shall pretend to improve; and we often see the difficulty which some have in copying any subject, and in giving the exact spirit; fully confirming the observation of M. Töpffer already quoted (p. 327). This is sometimes the case in drawing Greek statues, where the likeness may be given, and yet the real character may be wanting. And the remark applies even more for-

cibly to the imitation of a conventional style; and there are few draughtsmen, however good, who will for the first time seize the real character of an Egyptian figure. The same may be observed, in a minor degree, in copying ornamental works, and the adoption of the simplest patterns; which are sometimes utterly spoilt by the want of perception of the spirit and beauty of the original.

97. Variety of ornamentation in a building is pleasing to the eye; but the extent to which it is to be carried depends on many circumstances. Among these the principal one is the style of the architecture. The Greek and the Gothic require a totally different treatment. This does not, however, affect the question as to which is preferable. It is an error, and a not uncommon one, to compare the two; when in fact they both have their merits, each in its own particular way, and according to the conditions they were intended to meet. Two objects, an animal and a tree, may be equally beautiful in their way, or the hand and the foot, or any other two works of the Creator; but it would be inconsistent to compare them. And in like manner two styles of architecture may have their own peculiar beauties, without the necessity of subjecting them to a comparison.

98. Though I neither draw a comparison between Greek and our northern architecture, nor advocate the employment of one particular style of the latter to the exclusion of all others in our churches; still I cannot but express my admiration for the grandeur of the Norman, the gracefulness of the Lancet, and the rich variety of the Decorated period. These three were certainly far superior in beauty and elegance to the Perpendicular, or Tudor, style, their successor; and they maintained the true spirit of the so-called Gothic, until the overwrought fretwork, the formal repetitions, and the rectangular lines of the florid Perpendicular period, led to a disregard of the chief characteristics of Pointed architecture. It is

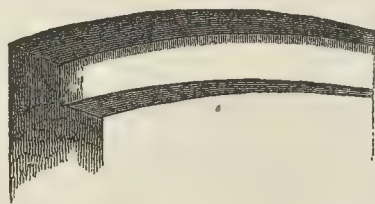
true that many grand buildings were made in the Tudor style; but at length it lost the very features which constituted the charm and peculiarities of the Gothic: the flowing lines, and the pleasing variety of the adjacent parts, were exchanged for numerous harsh rectangular forms and parallel lines, forced into accordance with curves; constant repetitions wearied the eye; and the walls became at length so covered with bars and fretwork as to be scarcely seen through this ornamental cage, which in the ceilings looked like a compromise between a fan and a net. And yet this over-elaborate treatment is what is so often admired in Henry VII.'s chapel at Westminster Abbey. I do not, however, extend this censure to the interlaced work, such as we see in the ceilings of rooms of a rather later period, with intricate, and at the same time, tasteful patterns; which are pleasing in form, and also well adapted for variety of colour.

In the Perpendicular style, the pointed arch of a window lost its proper effect, from the incongruity of the unbending lines which ran straight upwards through the head; and it had not even the excuse of its florid contemporary, the Flamboyant of France, of exhibiting an exaggeration of the features and characteristics of a preceding style. It even departed so far from the Gothic, that one portion of many a Perpendicular edifice, cast in metal, might almost serve for constructing the rest of it. And if the flat-headed four-centred arch is useful for the space it affords in the interiors of buildings, it ceases to claim any merit in a window, where its effect is heavy, and its tracery graceless and out of keeping with its form. The return to regularity, characteristic of the Perpendicular style, served to prepare the way for the introduction of the *Renaissance*; and the revival of the classical in this country had probably some connection with, or at least was aided by, the tendencies of this its immediate precursor, which had already the horizontal line as one of its leading features.

It is unfortunate that so many of our cathedrals combine the Perpendicular with the earlier Gothic styles. This could not be avoided when finished at different periods; but of all offensive anomalies, none are so inexcusable as the introduction of mock Greek, or cinque-cento, additions to a Gothic church. The insertion of Perpendicular tracery into an older Decorated, or Early English, window, has also a disagreeable effect, as has the juxtaposition of windows of those three periods; and the façade of Milan Cathedral, grand as it is, shows how injudicious is the attempt to combine two different styles. There has also been considerable difficulty in making the Roman arch accord with the character of Greek architecture; and much talent has been exercised, (not always satisfactorily,) in combining angles and right lines with curves.

99. The attempts to unite two different styles should be carefully avoided, as well as the introduction of any feature of architecture in a position ill suited to it. This last is an error of common occurrence, which is not confined to modern times. We see in many buildings a segmental arch (which too is generally disagreeable in its character) introduced among pointed, or round, arches; and what is worse, with nothing to

(52.)



correspond to its general lines, or its mouldings, in the jambs, against which it abruptly abuts; as if they had been built over its two ends at a later time. An arch too, whether circular, pointed, or segmental, which is carried up so near to the horizontal summit of a wall as only to leave a narrow space

above it, has an appearance of poverty and weakness (*figs. 1, 2*); which is still worse if the arch supports nothing, and passes above, or breaks through, the horizontal line of the

(53.)

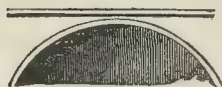


Fig. 1.



Fig. 2.



Fig. 3.

entablature (*fig. 3*). Nor will such a fault find any palliation from its occurrence in the façade of St. Mark's, at Venice; where the centre arch is thrust through the horizontal line which crowns the basement story.

100. I am far from finding fault with St. Mark's, which I unite with the most enthusiastic in admiring; but I admire it for its effect, and I am no more disposed to subject it to ordinary rules than any other object beautiful for its picturesqueness. An illuminated MS. (to which it may be compared) is not to be criticised like a painting. There is a charm in St. Mark's which is irrespective of architectural merits. It has a solemn mysterious character within, greatly increased by its half-darkened recesses, its chapels, and its columnar screens, and by so much being veiled from the sight, or imperfectly seen, that we only distinguish part of what we even look at. Wherever we stand, whatever we admire, we feel there is so much more unseen, which must be searched out, so that—as in a catacomb, with its succession of hidden chambers—our expectation is raised at every moment, and every object promises to be succeeded by another of equal interest. Wherever we look we are struck by a succession of gorgeous golden mosaics, and by the brilliant colours profusely displayed over the whole building; from the elaborately varied mosaics of the pavement to the summit of the cupolas. Its *bizarre* and novel character, and its many peculiarities,

have much to do with the charm it possesses. The impression on a stranger being invariably one of admiration is quite consistent with, and confirms, the fact of its not being looked upon in the same light as any other building, but rather with reference to its effect; for those who are most adverse to coloured architecture never think of withholding their admiration from St. Mark's. Its beauty, especially of the exterior, consists greatly in its picturesqueness; and when any one extols its excellence on the score of its *architecture*, he mistakes its real charm for its merit as a building. And it is evident that no similar edifice, whether an exact copy, or with the same peculiar character, of St. Mark's, would be tolerable (even in a similar position) in any other place. We should not say this of other buildings of repute. To maintain its claims as a specimen of good architecture is to deprive it of its real merits, and to do it an injustice by subjecting it to the ordeal of rules by which it should not be tested. For there is no denying that in many instances it sins against the principles of constructiveness, and the customs of architecture. What, for instance, can be worse than the horizontal line at the summit of the basement story of its façade, interrupted by the central arch (already alluded to); or the succession of semicircles crowned with ill-applied ogees, forming the upper story of the façade; or the ponderous graceless window in the centre, before which the ill-placed horses are put away almost out of sight; or the clusters of small columns, perched over the larger ones between each archway, which, like the horses from Athens, proclaim the manner in which the *plunder* from other monuments, collected by the Venetians, was added to their favoured church? This was done without adequate inquiry whether each suited it, displayed its own beauty, or contributed all it could to that of the structure; which appears to be curiously consistent in this respect, that it was built to receive the body of St. Mark, *also furtively* obtained,

from Alexandria. But, viewed *as St. Mark's*, no one will deny the charm it possesses; and though a Byzantine, not a Venetian, creation, it belongs as peculiarly and inseparably to Venice as the most indigenous style of architecture might to the spot where it grew up; and the associations connected with the romantic history of that "city of the sea," together with its *entourage*, give it a character possessed by no other building.

There is another edifice, the Doge's Palace, which, though equally open to censure in some respects, obtains a degree of admiration that out of Venice would not be accorded to it. And here again it may be better not to submit the building to the ordinary rules of architecture, but rather to view it through a different medium; for there is no denying that, if tested by those rules, the exterior of the Ducal Palace is faulty in the disproportionate massiveness of the upper part, crushing, as it appears to do, the beautiful Gothic archwork of the two lower stories, on the sea and piazzetta façades. The most enthusiastic admirer of Venice will scarcely defend this inconsistency; or the paltry pinnacle-battlements which disfigure the cornice. Whoever admires the two beautiful stories below, must feel regret at the injury done to them by the upper part; nor has it the same charm of peculiarity of style as *St. Mark's*. There are many specimens of similar buildings of the 1300, in France and elsewhere, in which the upper portion has not the same fault; being consistent in preserving a due proportion of openings or arched windows in that part, and in carrying up the same character of lightness throughout. There is indeed sufficient evidence of the upper part of this palace being a subsequent alteration; which is universally admitted by the Venetians; and Mr. Street has shown the lower part to be of 1301, the other rather later, "when the council chamber being found to be too small, and larger rooms being required, another architect suggested the

advantage of obtaining these by raising an immense story above the others."

101. Great is the charm of variety, when judiciously introduced, both in buildings and in ornamentation. It is one of the chief beauties of our Gothic churches; and it is remarkable that the architecture of ancient Egypt, though so ponderous in most of its forms, should have admitted this element at so early a period; and to such an extent that neighbouring columns were dissimilar, and side-doors, statues, and other accessories were often different on opposite sides of the same building. Variety in details is particularly pleasing to the sight, which is fatigued by the constant recurrence of the same form; and a great fault in an ornamental design is to repeat some one of the details till the eye is haunted by it, and retains, on being closed, an unwelcome image of the obtrusive pattern. The want of this variety is often observed in wall-papers, carpets, and many common designs; and in borders the simple change of a leaf or flower on different sides of a stalk at once shows the advantage of this diversity of arrangement, as in the borders of coloured glass windows, where the change of form and colour is most important.

102. But a double motive is rarely tolerable, and in most cases is highly offensive, both in ornamental designs and in architecture. Yet it is constantly admitted and even admired; and the round-headed window or niche, within a framework of rectangular mouldings, surmounted by a pediment, is one of these anomalies, borrowed from a corrupt Roman model.

It is also of importance that a building should be entirely planned and designed by one mind before it is erected; many are spoilt by some unsuitable addition; and that architect is generally to be pitied whose works are altered by a successor.

[Again, nothing can be more inconsistent than a part of one building mounted on another to make up a new design. The choragic monument of Lysicrates perched on a small temple, to form the steeple of a church, is one of many instances of this compound; giving the impression that the architect was too idle to invent a design of his own; and a spire set round with a small Greek colonnade, looking as if it represented a gigantic extinguisher slipped down into the cella of a round peripteral temple, might have been thought an impossible caprice, if it were not before our eyes on a London steeple. But the climax of bad taste (which holds us up to the ridicule of all Europe) is the Wellington statue on the arch at Hyde Park corner, which it has turned into a pedestal; while, by its colossal size, it has outraged the proportions of the arch it spoils, as well as of every surrounding object. The horse too stands *across* the arch in defiance of reason, and all received custom of design.] Nor is it sanctioned by having been found on a coin in that position; as this last is a conventional representation.

103. Vases in lieu of pinnacles, in a would-be Gothic building, are an unpardonable substitution of one object for another. They show an utter misapprehension of a really useful feature in architecture, which (according to a true principle) necessity suggested and taste made ornamental. Even the pinnacles themselves, if no longer useful, should not be there; and it is this introduction of details, in places where they have no duty to perform, which has been the parent of the meretricious ornament so often seen in modern buildings; instances of which occur in the crockets and finials introduced into rooms, on doors and furniture, and in the fretwork of confectionery-Gothic spread over a wall.

I do not, however, comprehend, under the head even of supposed ornaments, the monstrous tubes which protrude above the tops of London houses, on the plea of enabling

chimneys to perform the office for which they were vainly built. Chimneys are capable of being the greatest ornaments to a house; but in the whole range of civilisation and barbarism there are no houses so disfigured as ours by these unsightly appendages. Those who pretend to build houses ought to learn the principle of making chimneys without this defect.

104. [Many a graceful object is spoilt by some incongruous addition; sometimes, indeed, with the plea of use, but still not excusing itself for interrupting the harmony of an outline; and it may be questioned if the windows at the sides of a spire need obtrude themselves so far as to interfere with the line of its slope (*fig. 1*). The addition of a weather-

(54.)



Fig. 1.



Fig. 2.

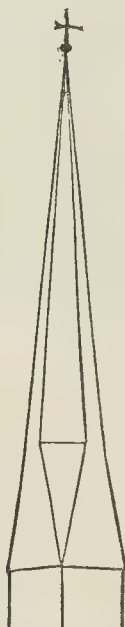


Fig. 3.

cock to the summit, spoiling the beauty of its point, is also a mistake; which, however, is far outdone by the rays and other monstrosities on the apex of every Egyptian obelisk at Rome, that so effectually disfigure the very part most essential to the beauty of those monuments. (*See above,*

p. 244). Many of our spires again, sin, like our modern obelisks (*fig. 2, a*), in their ill-proportioned obtuse points (56); others are far too thin and painfully sharp; and others, being

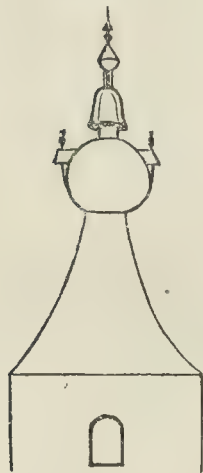
(55.)



circular, look like extinguishers, and have a somewhat discordant effect on a square tower; while some broach spires, elongated beyond all reason, appear as if they had been drawn upwards when in a plastic state; the operation condemning the triangular splay at the base to the same attenuated character, and depriving it of the appearance of solidity and use (*fig. 3*).

Indeed, we are not singular in this misunderstanding of a spire; and Belgians, Germans, and others, delight in producing an effect upon it not unlike that of an *aphis* on plants, by afflicting it with a goitre-like protuberance of hideous shape, at once at variance with proportion and form.]

(56.)



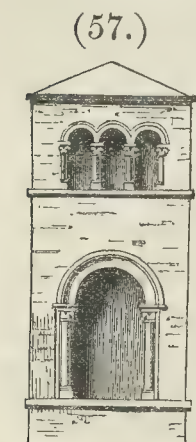
These mistakes are sometimes owing to the inability of small minds to comprehend the beauty of a line. They dread its extending beyond a very limited length, and therefore break it up by projections and indentations, without perceiving that the decomposition of an outline gives an impression of meanness, totally at variance with grandeur and breadth of treatment so necessary for architectural beauty. They would be alarmed at the long line of the entablature and roof of the great temple of Neptune at Pæstum, and would find the broken entablatures of Roman time more suited to their taste. The same dread of a continuous line makes them break the curve of an arch by a ponderous key-stone descending below the level of the archivolt, often rendered more unsightly by a grim face sculptured upon it, and more out of keeping when of stone inserted into a brick arch.

105. [To notice all the inconsistencies of architectural whims would extend my remarks beyond their proposed limits; but I cannot omit to mention some of those still perpetrated in our houses; among which are the story placed above the cornice, that should properly crown the building; and the half-columns, or pilasters, fixed against a *two-storied* wall, with the idea of ornamenting what in reality they deface. Nor have these the excuse of performing the office of columns,—which is “to support something;” they seem merely to adhere to the walls for no purpose; while the windows, in two tiers on each side, look like picture-frames hanging between them.] We have a blind admiration for columns in this country; which, excellent in their proper place, are rarely required for mere ornament. When appended to some insignificant house they are much on a par with a great display of splendour, in plate and *luxe de table*, or any unnecessary sign of wealth, at a very small party. Still worse is the repetition of heavy half columns; and many a building which would have been commendable is spoilt by these and other arbitrary appendages, utterly useless and forming no necessary part of the general design. An excuse has been made for half, or engaged, columns in their breaking the monotony of a blank wall, but this cannot be offered where windows perform the same office; and when there are other more suitable modes of ornamenting it. They are still less excusable when of granite or any coloured marble, and appended to a white stone, or what is worse a stuccoed, house. Coloured columns, whether on the exterior or in the interior, can only be consistent if the other parts of the building are coloured; and it was on this condition that their employment originated. In some the colour was carried out by incrustated slabs of coloured marble; and to these, when judiciously disposed, there was no objection, unless, as was sometimes the case in Italy, they were very thin slices of

stone, adhering to a coat of mortar on a brick wall; giving the unpleasant impression of being a mock ornament, liable to fall off and expose the unseemly groundwork beneath them. The same may be said of stucco, which affects, by imitating its joints, to be real stone-work; and in which we appear to delight, as if it were a disgrace to use bricks, or as if these were incapable of being rendered highly ornamental and effective. (*See below, p. 352.*)

Unfortunately, we derived our early impressions respecting the use of the half column from the tasteless Romans, who adopted as the rule what with the Greeks was rather the exception; and what was generally confined by them to positions well suited to it. The same objection may be raised to the indiscriminate use of pilasters; extending to the height of two stories. [On the other hand, the propriety of dividing the stories by string-courses is obvious; and it is consistent with reason and good taste, instead of being a mere introduction of ornament without the inquiry whether it is suitable or not.] For by dividing the house into stories its real disposition is followed out: composed as it is of several floors, one over the other; while on the contrary, the office of a column is to

support upon its *summit* an architrave, or a roof, without an intervening floor clinging to its shaft. There are also certain conditions in the arrangement of the stories, which are sometimes overlooked, as the proportion of the windows in each; and we see instances of immense windows on the first floor with others of a diminutive size immediately above them, having the appearance of belonging to two different buildings put together by mistake; which are equally destructive of all symmetry, whether



in a tower or a house. They are not improved by the upper story being disproportionably low compared to the one below

it; and still worse are large windows in the upper, and small ones in the lower, part of the building.

106. [The mistake too of making ill-proportioned holes in the walls, yclept windows, of such immoderate size that they leave no adequate spaces either between or above them, strikes every one who contemplates the generally monotonous character of our town houses, if his perception has not been deadened by the habit of seeing what is bad; and the custom of leaving the windows without any dressing gives them an appearance of baldness and poverty. Again, it is inconsistent to cut up the whole wall by these large rectangular apertures, in order to admit light, and then do all that is possible to exclude the same light by monstrous dust-catching hangings.] And this error of covering half the opening with curtains is the more obvious, as the space between the windows being ill suited, by its want of light, for pictures, or for anything intended to be seen by day, points it out as fitted to be then draped by the curtains; and these being drawn back again over the windows at night, the vacant space may (in a small or moderately sized room) display a large sheet of glass on its hitherto dark surface, which will contribute to the brilliancy of the room by candlelight.

Windows, narrow, and of enormous height, or of such an expanse both in height and breadth that they appear to belong to a manufactory, are still more objectionable; [and we may equally condemn a whole front so grooved with mouldings, surrounding the thick-set windows, that it looks as if solely composed of their framework. Above all, we must abhor the modern florid-confectioner style of building, which displays a superabundance of meretricious decoration, dotted over every part to the summits of the chimneys, as in some of our new streets.

107. The uniformity required in street architecture has very properly induced us to exchange the picturesque old

gable ends for a regular series of buildings; which, when not offensive in point of style, and not all painted at different times (by the perverse propensity of some "free-born Briton" to do as he likes and differ from his neighbour), are an improvement on the irregular fronts of olden time. But when a country house is made in a similar rectangular form, the case is totally different; for the solitary mansion, depending solely on itself for all the architectural features of the mass, requires another treatment: it no longer forms part of a pile of buildings, where nothing but its front was bound to display any marked architectural expression; it is now expected, when alone, to fulfil all the various conditions of a whole, and must adapt itself to the requirements of its position.] The country house too depends much on variety for its beauty; and the difference in height of the offices attached to it is another reason for an irregular treatment, not required in a town mansion; for these should contribute to the general effect of the mass of building, and be an ornament to it, instead of being concealed or planted out by trees and bushes, which make the house damp.

108. [In a northern latitude like our own, where the sun is generally very low, less effect can be obtained by vertical than by lateral shadows. A house with a plain surface, therefore, when standing alone, appears bald and poor; and the richest cornice (a rarity in England) will not at all seasons give its due effect of shadow. The projections of the so-called Elizabethan style,—where the wings, and the centre of the façade, the large stacks of chimneys, and other members, stand out from the dead surface and throw deep lateral shadows,—are consequently far better suited for country mansions; and this is one of many proofs of the propriety of consulting adaptability in all matters connected with taste. Care must, however, be taken not to sacrifice utility to a mere desire for ornament: for such is too often the case even in those very Elizabethan

houses which have so many claims on our admiration ; and a parapet wall is often added, which has the injurious effect of confining the snow between it and the roof, requiring men to be sent up to clear it away, and often making the house damp and leaky.] Here the notion of adding an ornamental feature is an erroneous one ; for besides the inconsistency of surrounding the roof of any house by a parapet, to collect the snow and leaves, which clog the gutters, the roof loses one of its most beautiful and characteristic features,—the overhanging eaves, which are capable of the most effective treatment, as in the Palazzo Farnese and other buildings, where the roof is in its proper place, at the top of the house, and where no attempt is made to hide what ought to contribute to its beauty. False pretences and concealment are contrary to sound principles and common sense ; and the difficulty of getting rid of the flow of water from the roof is merely an excuse.

109. The character of our Elizabethan houses was certainly better adapted to our climate than that which Dutch taste afterwards brought in ; when bald neatness was mistaken for simplicity. It was also preferable to those styles, in which low or flat roofs are an essential feature ; and which are ill suited to a country where rain and snow abound. In reality, a high-pitched roof is cooler in summer and warmer in winter than a flat one ; and it would be more reasonable to adopt the high roof in a hot climate than the flat roof in the north. I do not, however, in my praise of Elizabethan houses, include that part of the Elizabethan style which displayed the debased classical column, and other imperfections of the Renaissance. I speak of the general form and arrangement of our Elizabethan country houses, when the rooms are of sufficient height, and the ends (*a, a,*) are not so narrow and prominent as to look poor, and to make their rooms cold in winter.



110. The old English country house had also that very sensible arrangement of the garden, whereby it was made to accord with the formal character of the house; being laid out in terraces, and beds of geometrical patterns, as in France and Italy; and thus, the transition from the formal character of the house to the wildness of nature being gradual, the eye was not offended by the incongruity of two distinct sentiments. (*See Part I. p. 15.*) By terraces and a dressed garden I do not mean those mere slopes of turf, without plan or symmetry, which sometimes pretend to the name, but which are only fit for roadside villas. Terraces must be of masonry, with balustrades, or open work, to give an agreeable play of light and shade, having vases at intervals along their summit. A house, particularly when in a flat country, being thus separated from the surrounding level space, acquires additional importance; the terraces, too, close to the house form a grand basement to it, and prevent that impression, sometimes given by the line of the meadow, or the level park, of its having fallen from heaven into a field, or of having been a recent introduction there. Supported by the terrace, the house appears (as it ought to do) the main object, to which the surrounding objects are subservient, and to which all about it centres. The proper ornamental beds of a dressed garden are not those of whimsical forms cut in turf; they should be part of a general design, filled with masses of flowers, each of a different colour, and well combined; and they will have a pleasing effect, from their patterns, in winter as well as in summer. Nor is it sufficient to have vases dotted about lawns or grass slopes, as if they were "neighbour's landmarks," or had been left there by the gardener till he could find a suitable position for them. Their place is not on the bare turf; and there is the same abruptness in this mixture of the artificial and the natural as in the juxtaposition of wild nature with the rectangular house. Half a century ago there

was a rage for serpentine walks, and the wildness of nature up to the very walls of the house—the dressed garden having been proscribed throughout the country. To be nestled amidst overhanging trees was thought the highest recommendation of a country house; and it could certainly boast a degree of damp and seclusion which distinguished it from a town house. But more sensible notions are now gaining ground; and winding walks (quite as unlike nature as the most formal ones), with stagnant pieces of water brought up close to the house, to aid the trees in making it damp, are giving way to the dressed garden; and the utility and beauty of evergreens are acknowledged as a shelter to the walks, and as an agreeable substitute for bare branches during the winter. (*See below, on Gardens.*)

111. Though the Elizabethan house is so well suited to our climate in the country, it is by no means desirable for a town; and all imitations of it, as well as Gothic fronts, in a street, are unsuitable and out of character. In towns the Italian style is far preferable; and provided the roof really covers the house with projecting eaves and a rich cornice beneath them, having no snow-catching balustrade, no attic above the cornice formed out of a string-course, no half columns, and no bare undressed windows, there is no style better suited to a town mansion. It is the very one adapted to a club; and, indeed, unless an architect is capable of making a handsome building for that purpose, he cannot be said to understand the true principles of Italian architecture. There are some few buildings in London which may be cited as good specimens of this style, especially the last house on the south-east side of Palace Gardens, and the Reform and a few other clubs; and the failures in some of the latter may probably be attributable to the interference of incapable and irresponsible committees.

An appearance of oneness of design in architecture is a great recommendation; for it is a glaring fault in a building to look

as if it had been made at different times, and consisted of several parts put together to compose it. A portico projecting beyond the centre of a long front may be said to have this defect if its cornice is not made to correspond with that of the adjacent walls; and instances of this are sometimes met with even in buildings of great pretensions, as in the Glyptothek of Munich, where the portico has the effect of being thrust out from the interior court through the once continuous line of the front, whose cornice is forced to abut against its sides. In like manner, the portico of the Pantheon at Rome shows the utmost disregard for the correspondence of its entablature with any lines on the body of the building.

112. [The mean character, and affected simplicity, of the

(58.)



(59.)



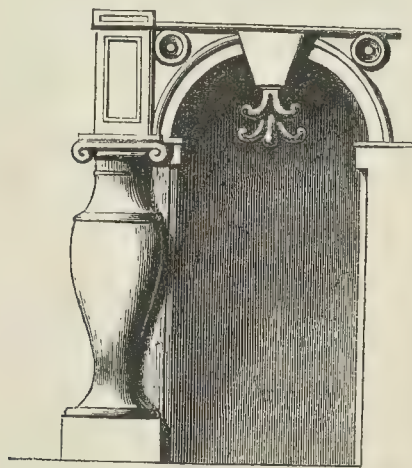
Fig. 1.



Fig. 2.

riding-school, and undecorated meeting-house, windows, have likewise found favour among some architects in all countries;

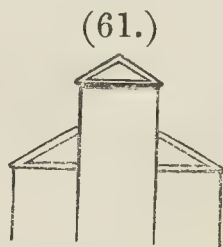
(60.)



as well as broken pediments, often even with round in lieu of triangular summits: copied from works of a debased era;] and

a conglomerate of corrupt classical forms is sometimes admitted into our houses in imitation of the bad taste of the Stuart period, where a hybrid between an Ionic column, and a Hermes' pillar, supports an arch with the key-stone in full blossom (60). Some capricious forms may have the merit of being elegant, as the small twisted columns of old cloisters, supporting light arches: and as long as they are small, and bear a slight weight, they are admissible; but the twisted shaft implies diminished power; and when they carry a large arch, or when (though of increased size) they are crowned by a huge mass like the tasteless baldacchino of St. Peter's, they are out of place, and lose the very merit which alone excuses them.

[The centre of a pediment thrust up as if by subterraneous agency, and leaving its two deserted ends far below it, has also been tolerated, perhaps admired; but although this last may have the sanction of Lombard architecture, and of some of Palladio's churches, it is only the result of a want of invention, decomposing what was beautiful, without the excuse of a graceful reproduction of it, under a new form.]



113. Fortunately, no one has adopted the false gable, perched on an upright wall, which rises alone far above the roof at the west end of many fine Italian churches; as in the façade of S. Michele at Lucca, of Sta. Maria Novella at Florence, and others. It forms in reality no part of the building, above which it only stands like a screen; and neither can the richness of its ornaments compensate for its graceless wall-shaped outline, nor the *appearance* of height it lends to the church excuse its uselessness and its false pretences. Whatever apology may be offered for it, it is a sham.

We may congratulate ourselves on an escape from its adoption, as well as from any imitation of the interiors of Italian-Gothic churches. Gothic was to most Italians a foreign

creation, which never accorded entirely with their feelings. Though they erected many grand churches in that style, their sympathies continued to be in favour of classical forms, and they never understood its real beauty. Had Gothic grown up in Italy independently of any bias towards classical recollections, the Italians might have succeeded in giving it a pure character of its own, like the northern architects; and they might have embellished it with sculptures, such as we admire at Rheims and Chartres, which the "*revival*" of art would have enabled them to execute with success. But their ideas recurring constantly to the forms of ancient architecture, prevented their excelling in the new style, and caused some inconsistencies, which we see both in the interiors and exteriors of their churches. The bald and heavy aspect too, of the upper part of the Italian nave, with its monotonous circles in the clerestory, contrasts very disadvantageously with the light and harmonious effect of our triforium and clerestory; and judging from the disproportion of the low wide pier-arches dividing the nave from the shallow aisles, and the heaviness of the vaulted roof, the Italians seem not to have appreciated the most beautiful characteristics of a Gothic building. They even failed in the very point for which they have generally been noted—the harmony of proportion.

That the architects of Rome should not have excelled in Gothic architecture is not surprising; they have an aversion to it; they neither admire nor comprehend its beauties; and there is only one church in that style within the walls of Rome.

Another feature in Italian-Gothic fortunately has been*, and we may hope always will be, avoided in this country; which is, the arrangement of alternate courses of black and white marble, copied from the East. But while we avoid the faults of its church architecture, we might adopt in our public

* We have only a few examples of it; but there is one, of alternate red and grey stone, in a doorway at Paignton Church, even of late Norman time.

buildings, where the Gothic style is employed, that breadth of treatment for which it is remarkable, in preference to the overloaded fretwork of our Tudor style, which invites the soot to corrode and deface it.

[It may also be hoped that our builders will cease to copy, one after the other, the unfluted, rusticated, and other unfinished columns, often with projecting square blocks for the alternate drums *, used in many modern edifices, which offend against all notions of good architecture, reason, and beauty.

114. These and similar errors, however, are not confined to England; they were owing to a debased Roman style having been studied, and followed at the period of the *Renaissance* †, and are therefore common to all who imitated it; but now that the principles and beauty of Greek taste are no longer unknown, they cease to be excusable.]

The square and round nodules on shafts, sometimes resembling “fleeces wrapped about them, as at the entrance of Burlington House,” have been very properly denounced by Mr. Ruskin (“Stones of Venice,” i. p. 294), as well as the rusticated work on the basement stories of some of our houses, in which he says, “our architects appear to have taken the decayed teeth of elephants for their type,” and “which, for the most part, resemble nothing so much as worm-casts.” He also very properly condemns the custom of purposely making the divisions of stones appear stronger, by chiselling their edges (p. 287); and still more the paltry imitation of squared stone in stucco, with the pretended divisions marked, or painted, on it. A house built with squared stones, all of the same size, so that each set of vertical divisions may correspond exactly with the alternate one above and below it, looks very monotonous; unless relieved by a proper richness of

* These square projections will not find any excuse from being met with in buildings by Palladio, as in the Palazzo Tieni at Vicenza, and elsewhere.

† Or *Cinque-cento* style, distinct from what should be called the *Revival* in Italy, which belongs to an earlier period.

mouldings and other ornamental features; and those Gothic churches, which are made of small stones of various sizes and shapes, with quoins of ashlar blocks, have certainly a far more pleasing effect, than when of perfectly regular masonry.

The choice of materials is not always attended to; and bricks, so much employed in England, are far from being properly appreciated. We seem to use them, like many other things, mechanically; and we have been said, perhaps not unjustly, to have a mechanical mind. If we want a cornice, or a string-course, or any other ornament to a brick building, it must be of stone: though the most satisfactory effect may be obtained in brickwork, or terra-cotta. It is true that a brick is a rectangular object, which serves for making a wall, and it may be arranged as a mutule, or quincunx, and a few other simple ornamental devices; but why should it be confined to a simple shape? It is of clay, and clay can be made into as many forms as the ingenuity of man can devise; and the rich terra-cotta designs in mouldings at Bologna, as well as at Pavia, Brescia, Mantua, and other places in Northern Italy*, are equal, and in some positions superior, to stone.

115. Among other errors is the distorted imitation of Greek ornaments; and nowhere is this more apparent than in the echinus, or egg-moulding; which was quickly debased by the Romans, and still more in Renaissance time. Indeed, it is to be regretted that the Renaissance architects, in borrowing from the ancients, were satisfied with corrupting the original they copied, without adopting its real spirit; or so modifying and reconstructing it, as to make a new creation of their own. Moreover, instead of following the examples of earlier and better times, they exaggerated the defects of the latest Roman buildings, by cutting up pediments and other members into the most graceless shapes, and covering the

* See Street's "Brick and Marble of Northern Italy."

flat surfaces with the worst *rococo* ornaments. Such kind of architecture gives an impression of being a compound of mediæval love of variety, and of an attempted copy of the antique; each antagonistic to the other, and striving to make dominant its own particular features,—a compromise between two incompatible ideas. It therefore failed to revive the old as a good copy, or to form a really new style. But still there is no denying that much was worthy of admiration in Renaissance buildings; and every one who appreciates and enjoys the beautiful can find much to commend in them. If they have their faults, they have their merits also; and many, like the palaces in various cities of Italy, are noble monuments of architecture. There is doubtless too much of the pilaster and engaged column, in many of those buildings; but here, as on other occasions, it depended on the architect, rather than on the style, to what extent the custom might be modified or increased; and some have all the grand simplicity that marks the Palazzo Farnese, while others display the exuberance of ornament of the Biblioteca at Venice.

It is by watching the mode of adopting and modifying certain features they borrowed from others, that we understand the process by which the Greeks (as I have before shown), improved on the productions of other people less gifted than themselves, and how their quick perception of the beautiful taught them to choose what was worthy of adoption. In tracing the rise and progress of different styles of architecture, as well as of different arts, we are speedily convinced that more is the result of adaptation than of invention; and we also perceive how each style, from the Greek, Roman, Byzantine, and Arab, to the Mediæval architecture of Europe, reappeared in a new character. Thus changed they command admiration, and we willingly acknowledge the talent displayed in remodelling them. We should, on the contrary, dislike them, were they merely corrupted, or debased imitations; as

we despise all paltry attempts at invention for the mere sake of novelty, and the not uncommon misconception of some original motive.

116. If some instances of these still occur, there is reason to hope, with the improving taste for architecture, and the very important study of the *rationale* of every part and every feature of a building, that the repetition of certain stereotyped ideas on the one hand, and the introduction of others from mere caprice will no longer be tolerated. Numerous, indeed, are the baneful results of that interference by which patrons or employers are constantly injuring the designs of architects*, showing how much depends on the improvement of the *general* taste; and there is reason to believe that when relieved from the blunders of *irresponsible committees*, our public buildings in towns will be as creditable to them as many of the churches they have erected throughout the country.

117. Indeed it is gratifying to find, that when the English compete with foreigners in architecture, they now sustain their own reputation and that of their nation by at least an equal display of talent; and this has been satisfactorily proved by the designs they have produced both at home and abroad. Those exhibited for the Public Offices showed an amount of talent which till lately did not exist in this country; thirty or forty years ago a similar collection could not have been brought together; and though some had the errors of the age, in the story above the cornice, in the adhesion of columns to the two-storied walls without the plea of supporting any part of the building, and in the roofs buried behind a parapet, their merits as a whole could not have been surpassed in any country. And when foreigners censure our

* As in the case of the National Gallery; where, besides other conditions, and after-thoughts, the architect was required to use columns from another building, whether they suited his design or not.

monumental designs, it would not be difficult to prove that many of their architects and sculptors, who enjoy great reputation, are guilty of anomalies and short-comings quite as glaring as any to be found in an exhibition of English competitors. We may be deficient in the full appreciation of proportion, form, and colour; and the postage-envelope arrangement, the figure banished to the top of a column, the ill-understood obelisk (sometimes *on four stone balls*), the slab (half pyramid, half obelisk) with a portrait within a wreath, and a few other commonplace compositions may still occur among our designs; but many of them appear also in those of foreigners, who fail in erecting good monuments equally with ourselves.

118. Nor are our improvements confined to architecture; the interesting and instructive collection of sculpture, in the Crystal Palace of Sydenham, shows that British sculptors compete most successfully with those of other countries; and the English school of painting, by the position it has taken, maintains the credit of the country in its own department of art. Nor can I abstain from noticing the great improvements made in pottery and porcelain, in glass, in carpets, and some other manufactures, where theory has not been allowed to interfere; and it would be satisfactory if the demand for them showed that the taste of the public kept pace with that of the makers. Unfortunately it is this which retards its progress; and however great may be the talent of the producer, he receives little encouragement from those who ought to be the first to give it—the educated and wealthy portion of the community. In fact, no one in this country can make works of a purely ornamental character with the hope of being remunerated for his labour and expense; they must be of general use to command any sale; and unless his profits from such as are *required* by every one, for household and other purposes, are sufficient to counterbalance his loss

on objects of taste, he soon feels himself obliged to renounce their manufacture. They are the mere luxuries of the few who happen to appreciate them; and when good taste is a luxury, and not a general requirement, it cannot be said that great advances have been made in its cultivation. This is not very flattering to our pride, but we must hope for the coming improvement in this particular. Indeed, we may be satisfied if it will only continue to advance as it has begun; and for the present it is of most importance that we should combine the beautiful with the useful in objects of every-day requirement. This is the best means of making taste general; and when it has become common in the household furniture of those who cannot afford to purchase costly things, it may deter wealthier persons from preferring the bad merely because they are sanctioned by fashion.

It cannot be said that the English are naturally deficient in a love of ornament, though this has sometimes been laid to their charge. There is not a peasant who does not display it in the humblest cottage. It goes *pari passu* with their fondness for flowers. All that is wanted for the poor man, as for others, is that good objects may be within his reach; and when accustomed to them he will renounce green parrots, vulgar drinking figures, and such commonplace objects, which are a disgrace to the maker and the purchaser.

Nor is it owing to an inability to learn, that our artisans are prevented from obtaining the instructions necessary for the execution of ornamental designs; it is the taste and encouragement on the part of the community which are wanting. They are capable of improvement if rightly taught; and they would soon produce objects of good taste, if these, and not the bad, were selected by the public. Proper instruction is what they require to ensure that improvement; and a remarkable proof has lately been given of the facility with which the English learn under proper tuition. Unimpeded

by the mannerism and peculiarities that fetter or influence men in some other countries, they are free to receive the impressions imparted to them by their instructors; and the same mechanical habit, which prevented their acquiring taste by their unaided observation, is useful in enabling them to perfect whatever depends on skilful manipulation. And as a nicety of hand makes them excel in cabinet and joiner's work, they are capable of attaining excellence in those processes which depend on manual skill. Admirable, therefore, as is the wood carving of those young men, who, in less than one year, have been taught at Alnwick Castle by Signor Boletti, we can account for this success by the aptness of the pupils, as well as by the talent of their instructor; and it is gratifying to Englishmen to know what may be done in their country by proper tuition, while they gladly acknowledge their obligations to the Duke of Northumberland for having established so admirable a school of woodcarvers.

119. It is certainly highly beneficial to taste, that wealthy individuals should come forward to promote it, and there are fortunately some in this country who have the talent and the judgment to appreciate what is worthy of admiration and encouragement. But this is not a privilege or a duty confined to the rich alone; a man of limited means may contribute towards the same desirable object; and it is equally incumbent upon him to engage in so good a cause. The humblest dwelling may display even greater taste than the most sumptuous palace. The beautiful does not depend on costliness or variety. Nor is it necessary for an individual to have *exercised* an art, in order to comprehend the excellence of its productions. Many of the best judges of pictures are not artists, as many very good judges of architecture are not architects; and indeed considering the numbers of frightful buildings in many parts of the world, and the small proportion of beautiful compared to the multiplicity of faulty

specimens put up within the last hundred years, it is evident that a claim to exclusive taste is not possessed, *ex officio*, by every architect. It is on the very fact of those who are not artists, architects, or artisans, being able to judge of their works, that the general taste of a country, as well as the encouragement of their talents, depends; and it would not be difficult to mention the names of many individuals in this country who are remarkable for taste and judgment in architecture, painting, and ornamental art. Experience, of course, gives to the professional man superior knowledge of constructiveness, and of the requirements of a building; but good taste does not *invariably* accompany professional knowledge. Study and observation are also very necessary to obtain an acquaintance with the subject, but these two last are fully within the reach of non-professional students, who have their time as well as their judgment free for the examination of the most important examples of various styles and periods; and perception of beauty is confined neither to a particular class of the community, nor to those who exercise any art.

And if some of the latter have pronounced it to be presumption in other persons to offer an opinion on the subject they look upon as peculiarly their own, they should recollect that though a doctor may overwhelm the remarks of his unprofessional patient by talking of the *agnôston* muscle, they cannot appeal to any mystery in matters with which taste and the appreciation of the beautiful are so intimately connected. Nor will wealth enable any one to *possess* good taste, though the payment of a large sum may sometimes secure for him a work of great excellence without the purchaser having any knowledge of its merits; as large prices may procure a valuable stud without its possessor having any knowledge of horses.

If some have imagined that taste is confined to particular persons, or only within the reach of the rich, some on the

other hand seem to think that taste is beneath the consideration of men of rank, and only fit to be studied by those who gain their livelihood by it. That this should be the notion of a barbarian may be intelligible; and we are amused at the pride of an ignorant Turk, who treats all Europeans as artisans, designates them as "tradesmen," and requests some traveller to stop and examine his watch, or some piece of disordered mechanism, supposing he *must* necessarily be instructed in such matters. But when persons of wealth and station pronounce the Crystal Palace, or any collection of art, to be interesting only to artists and artisans, and beneath the consideration of the aristocratic mind, we smile at the absurdity, and are only surprised that a civilised community can produce such fitting pendants to the Turks.

Fortunately, these are the exceptions, not the rule; it is no longer disgraceful to a "man of fashion" to be able to write legibly; and so far from good taste being confined to the possessors of art, it is thought a want of refinement to be quite destitute of it. An amateur may now excel in any art without being condemned for "doing it *too well*;" and he may understand the practical part of mechanics without disgrace.

120. I have stated that the chief impediments to the general progress and extension of taste are more often attributable to the purchaser than to the makers of ornamental works; and this opinion, on farther and fuller inquiry, I find to be confirmed. It is the universal remark that those things which are bad in style find a more ready sale than the good; and that not from the price being lower, but solely from the choice of the public. If the bad happens to be *attractive* it meets with admirers; and high finish, minuteness of detail, and whimsical shape, are greater recommendations than good form and purity of design.

We cannot then be surprised that the makers should cease

to produce what is good when, instead of encouragement, they meet with apathy, or want of judgment; though we regret that the correct and beautiful must be abandoned, and lowered to suit some contracted notions. These are the drags on taste, and the chief causes of its not becoming generally diffused. And so long as the educated and the wealthy choose bad designs in preference to the good it is vain to hope for any durable results from the laudable efforts now making to promote the instruction of artisans; or to expect that when instructed they will continue to produce excellent works only to be slighted by those who ought to appreciate them. It is neither sufficient that the artisan should be well instructed, nor that some few members of the community should patronise and encourage him; and unless taste is *general* throughout all classes who have the opportunity of practising or promoting it, there is little chance of its taking permanent root, and flourishing in the country.

One of the most important points, therefore, is — that taste be *general* among all classes; these too are essential: — that the beautiful be combined with the useful; — that proportion, good form, and (when required) harmonious colour, be combined in objects of every-day use; — that rare and costly *materials* be not preferred to *excellence of design*; — that good examples be imitated, rather than new designs invented merely for the sake of novelty; — that no design be made up of parts put together to form it, without reference to their compatibility; — that one object be not employed for another of a different character; — that *authority* be not an excuse for a faulty design; — that the spirit, not the direct imitation, of natural objects be adopted for ornamentation; — and that the education of the eye be preferred to a mechanical adhesion to mere rules.

PART III.

DRESSED OR GEOMETRICAL GARDENS.

I HAVE said that the ornamental garden near the house should be laid out in geometrical patterns, in order that it may accord with the formal character of that work of art; that it should have terraces and balustrades of masonry separating it from the rest of the grounds; and that to it a less formal garden with borders and winding walks might succeed,—leading by a gradual transition from the symmetrical and artificial part to that which bears a nearer resemblance to the wildness of nature.

The mode of arrangement in the geometrical garden will vary according to the nature and position of the ground, and other considerations. The gentle slope of a hill or rising ground is particularly suitable for a succession of stone terraces, or hanging-gardens as they are sometimes called, communicating with each other by flights of stone steps; the lowest terrace-garden being that most distant from the house. Even this last may have its central area laid out, like the others, in geometrical patterns; and avenues of clipped evergreens at each side, sometimes also at the end, may lead to the walks of the less formal garden beyond—which I may call the *border-garden*. But I need not enter into its arrangement, as it will depend on the character of the ground, and may have all the variety of which it is susceptible, both in the direction and position of the walks, the number and character of the borders, or of the flowers, shrubs, and trees introduced

into it, according to the taste of the owner and various circumstances.

I shall confine myself to the formal geometrical garden; and whether laid out on sloping ground or on a level spot its plan may be of a very similar character, at least in that portion nearest to the house; and though on a level space there can be no succession of terraces one above the other, the gradation from the geometrical portion to the less formal garden beyond may be equally maintained; and the mode of arrangement will depend on the extent and character of the grounds, the site of the garden, and the plan and direction of the house. This, however, should be observed, that where the space is *limited* a number of high formal yew or other clipt evergreen hedges are out of place, as their avenues cannot be of sufficient size to prevent the walks between them from becoming damp and overgrown with moss; and the small garden should not aspire to the same pretensions as one of greater extent. This too may be laid down as a rule, that in no case trees be made to imitate peacocks and other birds, or be cut into grotesque shapes; and such caricatures are not excusable even in the garden of a country village.

Whether the grounds or gardens be large or small it is advisable that no trees be near the house, as they tend to make it damp, and in autumn strew the walks with leaves; but the *approach* to the house may be by an avenue of fine trees, than which nothing is more beautiful, more grand, or more in keeping with the building; and those who prefer a winding road to the very door of the house, on the plea of its being *natural*, forget that the approach, however winding, is quite as *artificial* as the far more effective avenue. The road, before reaching the avenue, may be as circuitous as the ground and other circumstances require; and this gradation from the open country, or from the park, to the dressed parts about the house is a consistent and agreeable transition. Care

must, however, be taken that the lines of the road when curved be graceful, not abrupt, arbitrarily tortuous, or inconsistent with each other or with the character and form of the ground. "The line of beauty" should be the guide in laying down those curves; and it is essential to bear in mind that the same curves on a level plain and on undulating ground have a very different effect, the ground itself in the latter case altering their appearance, and giving to a straight line another character. It is allowable, and even advisable, that evergreens, which do not overshadow the house, be planted up to it, at least on one side of the garden, so that sheltered walks may be provided, and the means of reaching the house in winter without exposure to cold winds may be afforded, for those who walk to and from the grounds. Such shrubs have also the advantage of looking green both in winter and summer, and do not strew the walks with leaves; but large evergreen *trees* should not approach the house to make it damp, and obstruct the light.

It must be acknowledged that the level plain does not afford the same facilities for laying out a terrace-garden as the gentle slope of a hill, where the succession of different levels adds dignity to it, and where the commanding position of the upper terraces affords an opportunity of enjoying the full effect of those below; still it is possible to lay out a dressed garden in a perfectly level spot; and if the expense is not considered too great, a certain variation in the level may be obtained by carrying earth and raising the whole, or parts, of the surface of the inner portion. When, however, this is found to be too costly or too troublesome, and it is thought sufficient to have only one geometrical garden, the space selected for it may even be taken from a level field or lawn; and nothing more is then necessary, in order to separate it from the rest of the ground, than to make a sunk fence or fosse in that part, and to raise terraces of earth, cased with

masonry, above it, which may define its limits. And these artificial terraces, surmounted by stone balustrades, and standing a few feet above the general level, afford a sufficiently strong line of demarcation, and, if properly managed, do away with the impression of the garden having been part of the level space from which it was derived. There may also be another garden beyond it (which may be called a "*border-garden*"), with irregular walks and *borders*, planted with trees, shrubs, and flowers, taken from the same level space, and separated from the geometrical garden by the balustrade and low terrace; in which case the *sunk fence* may bound the outer instead of the inner dressed-garden. When, however, in laying out grounds of moderate size, an impression of greater extent is desirable, their separation from the open space, or meadow, beyond should not be visible, and the eye should be carried on at once beyond the sunk fence without perceiving its presence. The following arrangement of the gardens may also be suggested:—1. An inner geometrical garden nearest to the house; 2. Another one, less formal in its character, beyond it; 3. The undressed "*border-garden*" beyond this again; each separated from the outer one by balustrades and low terraces, and the outer one separated from the open grass land, the park, or the lawn, by the sunk fence. The lawn too, in that part nearest the house and garden, may be planted with cedars and various handsome trees; but no large piece of water should be near the house; and above all, an artificial lake, with little or no stream passing through it, should be forbidden in its immediate vicinity. Still less admissible is it if a river runs through the same grounds, or if any natural piece of water forms part of the landscape.

The position and even the form of a garden is always required to conform to that of the house and any other buildings, as well as to the peculiarities of the site. The architecture of the house must also be considered; and though I do not think it *necessary*

that all the trees which may group with it in the landscape should be of any particular kind, there is no doubt that those of vertical growth and dark colour offer a better contrast to the horizontal lines of a stone house of Italian or Grecian style than those of a rounder form; and the horizontal lines of that kind of house have a singularly good effect from contrast, when seen between the long vertical stems of stone pines or of a group of old Scotch firs. Such contrasts may be judiciously introduced here and there, even if not absolutely necessary; and due attention to the different growth of trees and to the colour of their foliage is a very important consideration in their arrangement. And there is no doubt that the upright poplar, too often despised, has an admirable effect as a contrast to the long level line of a meadow, and in other positions where a vertical line is required; as the dark hues of certain evergreen trees, the copper beech, and others of coloured foliage, tend greatly to the beauty of the grounds when properly introduced.

But I do not enter into the question of laying out grounds:—for these I refer to Repton and others; nor do I treat of those large terrace gardens such as are seen in Italy and France attached to spacious villas, as at Frascati, the Villa d'Este, and others: I confine my remarks to gardens which depend for their arrangement on beds in formal geometrical patterns; and of these I shall give a few examples, with the general arrangement of their colours, and the names of flowers best suited to form their various designs.

Numerous indeed are the patterns which might be given for the geometrical garden; and the arrangement of the garden itself is also susceptible of very great variety. Nor will they fail to suggest themselves to any one who occupies himself with the subject; and many may be found in works on gardens, as in Loudon's "Encyclopædia of Gardening," in the "Book of the Garden" by McIntosh, (Part

viii.), and others.* We must not however be satisfied to adopt for any garden the design or the patterns of beds we may accidentally see and be pleased with elsewhere; the form of the ground, the character and dimensions of the house, and many other peculiarities must, as I have already observed, be considered; and it is for this reason that *universal* rules cannot be laid down. But though without knowing all its conditions it is impossible to establish beforehand the proper distribution of a garden, some general ideas of the patterns and their colours may be suggested, and any one may adopt or modify them according to circumstances.

It sometimes happens that the house stands in a hollow, with a fall or slope from the garden, which always has a disagreeable effect, not only from an idea of the water draining towards the house, but from its taking away from the dignity of the principal object, to which the garden and every other part should be subservient. In such a case this remedy may be suggested: that a certain space, large enough for the geometrical garden, be lowered to at least the same level as the house, and that this space be laid out in beds, with a terrace wall at the farther end, on the original level of that part. This, it is true, reverses the order of the terrace and its walk, and you descend by steps *from* the terrace *towards* the house; but the inconvenience and bad effect of the slope towards the house is thereby remedied, and the terrace wall with its ornamental balustrade, at the opposite end of the intermediate garden, is not an unsightly object from the house, the geometrical design of the beds being between them. At the base of the terrace wall may be a sloping bed or border of mixed flowers; in which hollyhocks may predominate;

* Since writing the above, I have had an opportunity of seeing Kemp's "How to lay out a Garden," in which are many useful hints both for grounds and gardens.

and if the balustrade and the vases placed on each of its piers are backed by cedars of Lebanon or other evergreen trees, planted at some little distance behind them, the contrast of their white colour and the dark green of the trees will be by no means disagreeable. If the entire removal of the descent is not allowable, a *slight* inclination may be left from the terrace wall towards the house; but whenever it is practicable a perfect level is better adapted for the geometrical garden; and, as a general rule, this kind of garden should *never* be laid out on *sloping* or *uneven* ground; and whenever there is a fall of the ground it should be laid out in a *succession* of gardens or terraces, each on a perfectly level space. On the upper level (separated from the newly-made lower garden by the terrace wall) may be another dressed garden, between the terrace and the cedars; and in order that the cedars may approach in one part rather nearer to the balustrade, that corner of the upper garden may be made to form an acute angle with them; or some other arrangement may be devised, according to the nature of the ground. (See woodcut 62, in next page.)

A dressed garden of less pretensions may be projected in a level spot, and merely bounded by a slight trench and by a low wall with pierced work of bricks in patterns, or with half-circles formed of half main-drain tiles (Plate VI.), or even by a low clipped evergreen hedge. These are sufficient to define its limits, and the beds may then be formed of the same geometrical patterns as in other dressed gardens. But this does not really merit the name of terrace-garden, and is only a substitute for it which may be attached to a house of very moderate pretensions.

Some are satisfied that the patterns of the geometrical gardens should be laid out in turf, or have grass walks between each instead of gravel; and it is certainly easier to cut beds in turf, as in a level lawn, than to lay out

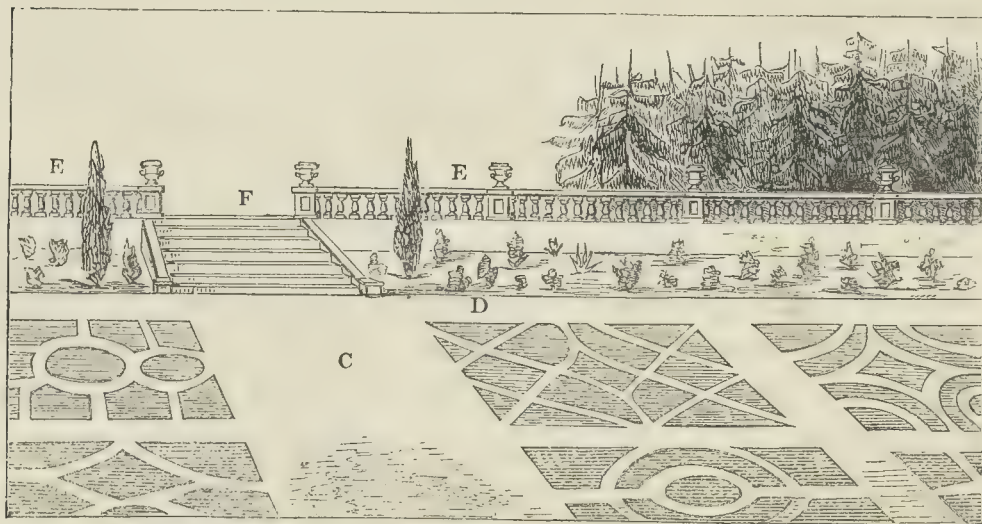
a garden *de novo*; but it is not the *facility* of making the garden, it is the effect to be produced when made,

(62.)

Fig. 1.



A Fig. 2.



- A, House. B, Slope.
 C, Geometrical garden on the slope, when lowered.
 D, Sloping bed against the terrace wall.
 E, Terrace walk and balustrade.
 F, Upper dressed garden.

its suitableness to the character of the house with which it groups, and other higher considerations, which are to be regarded; and though patterns in turf may answer very

well for the less formal garden, or for one of humble pretensions, they are by no means suited for the dressed geometrical one. In this last turf walks are very troublesome to keep trimmed; the grass, unless constantly attended to, is deficient in neatness, and when cut is apt to litter the beds; in wet weather they are too damp to be used as walks; they require to be made of a breadth quite out of proportion with the beds; they are less in keeping with the character of the house or the terraces and gravel walks about it; and they fail to give an expression of finish and importance. They belong to another kind of garden. In the less formal garden the walks may be of turf, as they may there be much broader than in the geometrical garden; but here again it is necessary that the beds should be of good design, not placed at random, without any connection with each other, or any regard to symmetry and *general* effect; and two or three beds cut in turf, and dotted about here and there, have no merit whatever. They have no *general design*, which is an indispensable condition of every kind of formal garden. They are a mere imitation of it, without any regard to its true principles. Still worse are they when the beds, even in turf, affect to represent real objects, as birds, butterflies, or any other form in nature; and stars, crescents, hearts, and leaves, are for the most part merely the refuge of those who are incapable of composing good designs.

A house may very properly stand on a broad terrace (as a basement) which may be without any beds; and may either be on the same, or on a higher, level than its geometrical garden; and from the latter a broad central and two side flights of steps may lead down to a second terrace garden, with geometrical beds, fountains, statues, and vases, as in the upper garden, besides smaller vases on the balustrades which bound and separate them. The beds themselves,

whether in a terrace garden or in any other geometrical one made on a level spot, may be very similar in their arrangement; and a design for the one may serve equally for the other when of the same size.

The geometrical garden is capable of great variety. I will suppose one in a level spot, bounded by the usual stone balustrade on a terrace wall and by the sunk fence. On the inner side, close to the balustrade, is either a border for flowers, or the terrace walk itself, raised, as before described, by artificial means, and standing above the level of the plain as well as of the space in which the geometrical beds are designed. From the terrace walk a slope descends to the lower walks round those beds, and each bed is separated from the adjoining one by a smaller walk, gravelled like all the others; and in the centre is a fountain, and other ornaments already noticed.

Each bed is edged with box, stone, or *terra-cotta*. These are the best edgings; but painted wood will answer the purpose, though it is apt to be warped by the wet, and soon decays. *Terra-cotta* is far better; it has also the recommendation of being less expensive than stone. If some object to box because it harbours insects, this grievance is not beyond all remedy, and the trouble it gives is compensated for by the appearance of the box itself. Indeed a portion of the dressed garden, with patterns laid out entirely in box, is by no means unworthy of commendation, like that beautiful one attached to the Kasr (or Al Casr) at Seville; where (though in its present condition it is said to be the work of a Frenchman) I think we may trace some patterns taken from Arabic sentences, entirely formed of clipt box. They have a very pleasing effect; and a valuable hint may be obtained from this kind of evergreen design for winter beds. Each main compartment is marked off by a higher and thicker hedge, or barrier, of the same, or of some other evergreen

plant, and within it are the beds formed of patterns and small paths of gravel.

Such designs in box might with advantage form one portion of a large dressed garden, distinct from the other geometrical beds; and it is not forbidden to unite some low box patterns with these last, though they generally look far better by themselves, and the flower beds may be satisfied with having their edgings of box. Sometimes the box patterns may be laid out in some other part of the garden; or even in the level turf, being surrounded and marked out by small gravel walks; or they may form a small independent *parterre* by themselves. (*See Plate VI. fig. 2.*)

Those who object to box* for edgings, may make the flower beds on a somewhat lower level than the walks between them, using stone instead of box; and this is not altogether without reason, as the earth is often washed by heavy rain into the walks when they are lower than the beds; and the slight decrease of level in the beds compared to the walks has not a bad effect. At all events, whether edged with stone or box, it is well that the beds should *not be higher* than the walks, for the reason just given; they should rather be about the same height, the centre of the beds being a little higher than the edges. But the best method is to have the walks and beds in the geometrical garden of the same level.

The size of the beds is also an important point, and none of them should be so small as to appear like spots of colour, nor so large that any part cannot be easily reached by a rake. In the quantity of colour, care should be taken that blue, red, and yellow predominate, with orange and blue-

* If thick box is thought to harbour snails and slugs, it is still more necessary to have no walls or stone-work with joints and crevices, in which they can find a lodgment; and plants, such as the *Arabis*, on walls or in beds, is a great encourager of them, from the closeness of its stalks and foliage.

purple (like the purple verbenas) and a sufficient quantity of white, which may often be introduced very advantageously, as it brightens the general aspect of the coloured design.

One of the greatest elements of beauty in a garden is form, and it is of paramount importance that it should be in accordance with true principles. This too should regulate the mode of planting trees; and nothing has a more disagreeable effect than a number of single trees dotted about here and there in the grounds without any regard to their relative position, or their accordance with the surrounding features of the landscape and the nature of the ground. They should be planted in masses and groups, not singly; they should be part of a general design, and not look as if fallen accidentally into their isolated position. And this shows how mistaken is the now obsolete notion that nature is to be copied, and that everything in grounds and gardens is to mimic her fortuitous wildness. Whatever may be the supposed imitation it is always unlike nature; and it is better at once to renounce any attempt to combine two distinct *motives*. A wood may be wild (as it ought to be), and it may have a natural appearance; but the artificial grounds can never resemble nature; and while they need not assume unnecessary formality, they should seek to be beautiful by proper arrangement rather than affect a character they cannot maintain.

If design and good form are so necessary there, it is very obvious that they are the very *soul* of a dressed garden; and the study of form is not only of importance in the garden, because it is less changeable than colour, but because even in winter the beauty of geometrical patterns remains when the colours of the flowers are entirely gone, and nothing is left beyond the sad recollection of their faded beauties. And this is one of the greatest advantages that

the geometrical garden has over ordinary beds and borders, which derive their effect from the colours of their flowers.

Dependent as it is for its beauty on form and colour, the geometrical garden admits no rock-work, or capricious and irregular conceits clashing with the general design; and while vases, nor statues, are consistent and even desirable parts of it, they must not be introduced without reason, nor stand on the turf without a base (as I have before observed, p. 346). They should form part of the general design. Above all they should not rise from a mass of rock-work; and the fountain, a very suitable feature in such a garden, must never be surrounded by rock-work, or by rough stones. These may be tolerated in the less formal one; where large flints and other stones often form good edgings for beds, and may even be covered with ivy; and where the fountain may be surrounded by them or by flowers placed out in pots.

Geometrical beds may be better suited to a large than to a small garden; and in all cases there should be beyond the geometrical, a less formal border, garden; the former being, if I may so call it, an appurtenance to the house, and a part of the ornamental plateau on which it stands; but no attempt should be made to combine the patterns of the geometrical, with the beds or borders of the outer informal, garden; and such patterns are especially out of place in the neighbourhood of bushes and winding walks. There should be a gradation from the geometrical to the border garden, if possible by one of less formal character. The transition should not be abrupt. It is however a mistake to suppose that when a garden is small no portion of it should be laid out in geometrical patterns; and I have seen one with a terrace walk, and the usual beds (very similar to that in Plate VII. *fig.* 1) not a hundred feet square, which when bright with flowers, gave the impression of possessing far

more importance than it had any right to claim from its extent. The same remark applies to all kinds of gardens; though they should be of sufficient size not to appear insignificant, nor vainly to imitate those of greater dimensions. Their beauty does not depend solely on their extent.

*"It is a prevailing but most erroneous opinion (says Captain Mangles) that the enjoyments derivable from a garden are just in proportion to its magnitude; so far from this being the case, at least in our opinion, we most decidedly believe that it would be conferring a most essential service on the science of gardening, either to lessen by one half almost every ornamental garden in the country, or allow double the amount of labour to that usually bestowed upon them. In ninety-nine gardens out of every hundred, it will be found that their extent is such, compared to the labour allowed for keeping, that the time and attention required for the nicer operations of the art is almost, if not wholly, absorbed in the manual labour required for keeping in repair the beds, grass walks, &c. This ought not to be: the pleasures and enjoyments of a garden by no means depend on its extent but on its higher state of culture and keeping."**

But though actual size is not necessary, it is of importance, when gardens or grounds are small, that they should not have the *appearance* of being confined to a limited space; and an effect of greater extent should be given them than they really possess, by a suitable *direction* of lines both in the walks, and in the disposition of the bushes and trees of the borders. Those lines should *lead* the eye to the distance; and where that is bounded by a continuous belt of trees, judicious openings should be made to connect the space beyond them with the grounds; which ought not to proclaim that they are confined to their own narrow limits. Even

* Page 111, of that very useful little work, the "Floral Calendar," by Capt. Mangles, R. N.

when nothing but sky is to be seen beyond, still openings should be made, with a similar view of giving an impression of extent; and the same rule regarding belts of trees applies equally to grounds of large, as well as of limited, dimensions.

Next to the arrangement of the geometrical beds, another great element of beauty in a dressed garden, is the determination of the colours for harmonious combinations, and the proper selection of the flowers according to those colours; and due attention must be paid to the effect they are to make in the beds as well as to the maintenance of a succession of them during different seasons. For this purpose, after having decided on those whose hues accord with the proposed design, it is necessary to ascertain what flowers best suited to it blossom at the same periods; and a succession of those of the same colour must be fixed upon to take the place of each, and continue the same designs at successive seasons. They should also be, as near as possible, of the same height as their companions; so that the blue flowers be not over tall in one bed, or the red too short in another; for which purpose some may be pegged down; and when any plants of good colour blossom during the greater part of the year, they may be advantageously chosen on this account.

It is by no means necessary or advisable to select rare flowers for the beds; and some of the most common are the most eligible, being more hardy, and therefore less likely to fail, or to cover the bed with a scanty and imperfect display of colour. Indeed it is a common mistake to seek rare flowers, when many of the old and most ordinary varieties are far more beautiful: and there are other and far better positions for the display of rare plants, when they will grow without glass, than in the dressed garden.

Of the arrangements of colours in the beds it will suffice to give a few examples, which will show how they may be combined for a harmonious and brilliant effect; as in

Plates VII. VIII. In the last of these I have given the half of a geometrical garden having a terrace-walk (studded with beds along the sides, and end) raised a few feet above the central part where the principal patterns are laid down; and separated from the walks in that part by a slope of turf; which is repeated round the fountain in the centre. Large vases on pedestals stand in the middle of the lateral beds; and Irish yews are planted in small circular beds at each corner; the whole laid out on a level spot, from which it is divided by a sunk fence.

In *fig. 1* of Plate VII. (which I have already noticed, p. 373), the rectangular garden is surrounded by a stone terrace-wall surmounted by a balustrade, bearing on each of its piers a vase; a continuous bed, or border for flowers of different kinds and hues, extends round three sides close to the balustrade, with a gravelled terrace-walk parallel to it; and from this a sloping bed planted with flowers, in a zigzag or other pattern, descends to the sunk garden, which is laid out in a geometrical design. This zigzag arrangement, however, is not given as a very eligible one; it is merely intended to show how the *colours* may be introduced on that sloping border. And it is even allowable to plant that part with mixed flowers, provided they are bright and well combined; and masses of blue and scarlet (as *salvia* and *geranium*), or other harmonious hues, may with propriety be mingled together there, as in the borders near the balustrades, where they have a very good effect so interspersed; the geometrical beds having each its own particular colour. In the centre is a fountain, or a vase on a pedestal, and Irish yews, or cypresses, at each corner.

In *fig. 2* of Plate VII. are various patterns; which may be selected or varied, according to the design of the intended garden; as its distribution and plan may depend on its size, position, and various circumstances. These patterns are only

a portion of a design; and are not intended to be a garden; which would require the introduction of side beds, similar to those in Plate VIII., though of greater extent and variety. For to accord with the dimensions of this portion of it, the garden should be made up of many similar sections, and the whole be surrounded (as I have just said) by lateral beds and ample terrace-walks.

And having given the arrangement of the colours I shall now add a list of flowers most useful for making the proper combinations in geometrical beds, with the season in which they blossom.

The principal colours I have introduced are blue, red, scarlet, pink, purple, lilac, yellow, orange, and white; which are the most effective for the purpose. Green is found in the leaves of the plants themselves, and may be considered in most cases as the ground to the other colours.

But though the above mentioned are the most appropriate for geometrical beds, various tones and hues of purple and other colours may be used in some parts; and even variegated and mixed flowers may occasionally be admitted, as pink and white sweetwilliams, variegated tulips, red and white carnation-poppies, garden poppies, dwarf larkspur, *Clarkia marginata* (pink bordered with white); York and Lancaster roses (pink and white, pegged down); *viscaria oculata* (white with dark red eye); *Gaillardia grandiflora hybrida*; *Obeliscaria pulcherrima*; wallflowers; China and German asters*; *amaranthus*; heartsease; striped carnations; *Collinsia bicolor*, *grandiflora*, and *multicolor*; *Godetia rosea alba*, &c. (*see pink*); lupins; sweet peas; and some others; though their effect is never so good as those of one brilliant decided hue; and they should only be used in a very *large*

* *See Blue*, under which I have introduced them into the list, from its being the prevalent colour; and like the African marigold, they are too useful not to be mentioned among flowers suited to beds.

geometrical garden where the superabundance of the single primary colours in the many other beds has the advantage of keeping them in a secondary position. In a small dressed garden they are not advisable; though they are allowable and useful in borders. Nor are subdued tones, such as lavender and others, admissible, except when the garden is large and the beds numerous; and when it displays a preponderating number of more brilliant colours.

Many plants may be put into beds much earlier if pipes are laid down to convey hot air beneath their roots; by which means, if secured from frost, verbenas may blossom there in the last week of May; but this can only be done when the position of the garden, at no very great distance from the fires, admits of it, when there is a large establishment of gardeners, and when the expense is not an objection.

Common flowers, the weeds of the country, are often most beautiful in colour, and are not to be despised because they are common; they have also the advantage of being hardy; and rare flowers (as I have already said) are not always those best suited for beds. Gardener's varieties may be advantageously used for the purpose, being put in *in succession*; and it is sometimes found convenient to bed them in pots, in order that they may be removed to the reserve garden or elsewhere, when they are out of flower, and be succeeded by others in the beds.

Other observations on the treatment of flowers for the beds of geometrical gardens will be found in the following list; where they are catalogued according to their colours, and the season in which they flower; and illustrations of the arrangement of the various colours will be found in Plates VII. VIII.; for the explanation of which I refer the reader to the description of the plates, and to the remarks I have introduced in p. 376.

COLOUR.	PLANT.	WHEN IN FLOWER.	REMARKS.
BLUE.	*Scilla siberica, and verna	End of Jan. Feb. and March.	Very small; and therefore fit only for small beds
	Hepatica triloba, (also pink and white)	February and March.	
	Gentianaella, Gentiana acaulis	Beginning of March to middle of April.	Perennial, to be reserved and planted again in November.
	Gentiana verna	March, April, and May.	
	Anemone Apennina, mountain anemone	Middle of March and April.	More hardy than H. orientalis.
	Hyacinth, wild, H. non-scripta	April and May	Of different colours, blue, purple, pink, red, and white.
	Hyacinth, H. orientalis	April to end of May (about one month.)	
	Veronica chamaedrys	April to October.	Raised from cuttings in hotbed.
	Anagallis cærulea	Planted out in beginning of May.	Idem.
	Anagallis indica	Idem.	
	Italian Anagallis, A. Monelli	May to September.	
	Myosotis palustris	Beginning of May to frost	If the flower-stalks are constantly cut.
	*Viper's bugloss (Anchusa)	Not very good for beds, being too tall, better for borders.	
	*Milkwort, Polygala vulgaris	May to October	Small for beds, and not of good colour.
	Eutochia viscaria	Second week in May, till end of August.	Sown last week of March.
	*Spiderwort, Tradescantia virginica	May to middle of August	Not very good for beds, having too much leaf.
	Linum usitatissimum (common flax)	May to frost	In succession.
	Convolvulus minor	May to end of August	If sown in March and forced, blossoms in first week of May.
	Lobelia erinus	May to frost (see red lobelia)	Grows better if a few small stones are placed under the stems.
	Agathaea (Cineraria) celestis	Middle of May to frost	Of numerous colours and hues.
	Salvia patens	Third week in May, to frost	Pegged down.
	*Columbine, Aquilegia vulgaris	In May, for about two months	Indistinct colour, and not very good for beds.
	Myosotis azoricum	June to October	Also pink, purple, and white.

* Those marked (*) are not very suitable for beds in patterns.

COLOUR.	PLANT.	WHEN IN FLOWER.	REMARKS.
BLUE.	<i>Gentiana pneumonanthe</i>	June to October	Large.
	<i>Nemophilla insignis</i>	First week June to frost.	
	<i>Brachycome Iberidifolia</i> , var. <i>cærulea</i>	Summer and autumn	In succession, like other annuals †
	* <i>Borago officinalis</i>	June, for about six weeks	Not very good for beds, too high and straggling.
	* <i>Veronica azurea</i>	June to autumn	Three feet high, too high for beds.
	* <i>Veronica æmethistina</i>	Idem.	Four feet high. Idem.
	<i>Kaulfussia amelloides</i>	Summer	In succession, deep blue.
	German larkspur, double <i>Delphinium</i>	June till frost	In succession.
	<i>Scabiosa succisa</i> , Devil's-bit scabious	June to October.	
	Canterbury-bells, harvest-bells, <i>Campanula</i> medium.	June through autumn	Sometimes blossom again when cut down after the first blossom.
	<i>Campanula rotundifolia</i>	Middle of June and August.	
	<i>Campanula Carpatia</i>	Idem.	
	<i>Campaluna speculum</i> , Venus's looking-glass	Idem.	
	Cornflower, <i>Centaurea Cyanus</i>	June to frost	Pegged down.
	Cornflower, <i>Cichorium Intybus</i>	June to September.	
	<i>Scabiosa gramuntia</i>	July and August.	
	China aster (<i>aster Sinensis</i>)	July to frost	
	German aster	Idem.	German asters being dwarfs, are better than China asters. Mixed, blue, pink, lilac, white. In successions. If sown early in February and kept in frames till the first week in May, and then planted out in beds, blossom in the last week in May; others sown in March to succeed; and again in April and May (which is the best) month for all annuals in the open beds), and these last blossom in August.

† Annuals sown the first week in May are stronger and better when put out than those sown at an earlier season.

COLOUR.	PLANT.	WHEN IN FLOWER.	REMARKS.
BLUE.	Dwarf lupin, <i>Lupinus nanus</i>	July, September.	Poor, and of an imperfect blue colour.
	Gilia achillæfolia	Summer	Idem.
	Gilia capitata	Summer	Idem.
LIGHT-BLUE.	Aggeratum cæruleum	Middle of June to frost.	Hues of red and purple. If sown in March, blossom about September, but are not then required.
	Polyanthus	End of January to May	Various hues, red, yellow, &c. Various hues, red, purple, white, blue, pink, in succession, if sown at intervals.
RED.	Ranunculus	March to June	To be kept in pots in the ground, blossom in second week of June.
	Garden anemone, <i>Anemone hortensis</i>	March to May, and October to Frost.	Idem.
	Verbena Melindris	Middle of May to winter	Rather <i>crimson-red</i> , in succession; those sown in May last to frost.
	Fuchsia gracilis, &c	May till after frost	Pegged down.
	Amaranthus caudatus, Love-lies-bleeding	May to frost	In succession.
	Prince's feathers, <i>Amaranthus hypochondriacus</i>	Idem.	Idem.
	Celsia	Beginning of May to frost.	
	Red rose	May to winter	
	Anagallis arvensis	Beginning of May to October	
	Anagallis grandiflora	Idem.	
	Lobelia surinamensis <i>var. rubra</i>	June to August.	
	Pink, <i>Dianthus hortensis</i>	June, July, and August.	Blood-red colour, new plant.
	Dianthus Dunnetti superbus	Idem.	Not full of flower after July.
	Sweetwilliam, <i>Dianthus barbatus</i>	June to October	<i>Crimson-red</i> (varieties of).
	Phlox Drummondii	June to frost	In succession, of a scarlet hue.
	Linum rubrum grandiflorum, or, <i>Linum grandifl. verum kermesinum</i> } *Valerian	June and autumn Middle of June	Not good for beds.

COLOUR.	PLANT.	WHEN IN FLOWER.	REMARKS.
RED.	Helianthemum	June to October	Rather too much leaf.
	Carnation, Dianthus Caryophyllus	July to frost.	
	Martynia diandra	July and August.	
	Snapdragon, Antirrhinum majus	July to frost	Of various colours, crimson red, pink, white.
	Zinnia multiflora	July to October	Rather of pink hue.
	Penstemon pulchellus, and P. gentianoides	September to frost	Tall, but useful if pegged down from its coming in late.
	Ranunculus	March to June	Of various hues (<i>see</i> Red).
	Anemone hortensis	March to beginning of May	Idem.
	Anagallis Parksii	Planted in the beginning of May	(<i>See</i> Blue.)
	Salvia splendens	May to winter	Put out in blossom.
SCARLET.	Verbena	Middle of May to winter	If put out in blossom.
	Geranium	May to winter	Tom Thumb and Punch varieties are most brilliant in colour. Put out in blossom.
	Celsia incisifolia	Middle May to frost	Put out in blossom.
	Corn-poppy	May to frost.	
	Cuphea	June to frost	Not very powerful colour.
	Sweetwilliam	June to October	(<i>See</i> Red.)
	Lobelia cardinalis and splendens	Middle of June and July	Pegged down.
	Common Nasturtium	June to winter	Idem.
	Nasturtium Tropæolum majus	Idem.	Idem.
	Nasturtium, Catel's dwarf scarlet	June and autumn.	
PINK.	Lychnis chalcidonica	End of June and July	Put out in blossoms.
	Zinnia hybrida	July to October.	
	Heath, Erica carnea	January to May	Dwarf heath.
	Hepatica triloba	February to May	The best colour. Also blue and white varieties.
	Saxifraga oppositifolia	Idem.	
	Hyacinth	April to end of May	Of different colours. (<i>See</i> blue hyacinth.)
	Daphne Oneorum	April to May	Later in good climates.

COLOUR.	PLANT.	WHEN IN FLOWER.	REMARKS.
PINK.	Rose	May to winter	Pegged down.
	Clarkia pulchella	May to frost	Succession crops.
	Helianthemum	May to September	Not very full of flower.
	Petunia	Idem.	Put out in blossom.
	*Veronica elegans	Idem.	Rather high, and not very full of colour.
	Verbena	End of May to winter.	Succession crops.
	Stock (German)	End of May to frost	Ditto. Blossoms not quite sufficient for the
	*Mallow, Malva grandiflora	June and autumn	quantity of leaves. Rich crimson hue.
	Viscaria oculata	Summer and autumn	Bright rose, with a dark red eye.
	Viscaria cœli rosa	Idem.	Succession.
	*Godetia rubicunda	June to frost	Succession; but not very good for beds.
	Pink, Dianthus hortensis, &c.	June and July.	
	Indian Pink	Summer and autumn	Of mixed colour.
	Sweetwilliam, Dianthus barbatus	June to October	(See Red.)
	*Schizanthus	June and autumn	Blossoms scanty.
	Rose Campion, Agrostemma coronaria	June to frost.	
	Phlox Drummondii	Middle of June to frost.	
	Saponaria calabrica, soap-wort	June to frost.	
	*Ragged Robin, Lychnis flos-cuculi	June to September	Not with sufficient mass of colour.
	*Mesembrianthemum	June to October.	Not very good for beds.
	*Rhodanthe Manglesii	Summer and autumn	Idem.
	Heath, Erica mediterranea and stricta	July to frost	To be kept down.
	Lobel's catchfly, Silene Armeria	Idem.	(Also white.)
PURPLE.	Polyanthus	End of January to May	Hues of purple and red.
	Iris persica	March.	
	Iris tuberosa	March to April.	
	*Auricula.	March and May.	(Also Yellow Auricula.) Poor for beds.
	Crocus	February and March.	

COLOUR.	PLANT.	WHEN IN FLOWER.	REMARKS.
PURPLE.	Hyacinth	March to June.	
	Leptosiphon densiflorum	April or May to frost.	
	Campanula speciosa	May to July.	
	— mollis	May to September.	
	— hybrida	May to November.	
	Heliotrope	May to winter.	
	Stock (German)	End of May to October.	
	Verbena	May to December.	
	Cineraria	Middle of May to frost	(See Blue.)
	Petunia violacea	June to early frost.	Not a good colour. There are also pink, white, and red Hieracium, all poor in colour. (See Yellow Hieracium.)
	Hieracium, hawkweed	June to frost	
	Senecio elegans, American groundsel, formerly Jacobaea	June to October.	
	Linum Lewisii	June to frost	In succession.
	*Heartsease	All summer	Not very good for beds.
	Geranium sanguineum	Idem.	
	Ethulia corymbosa	Summer	Pale purple.
	Martynia formosa	June to September.	
	*Purple rocket, Hesperis matronalis	June and part of July	Far too short a time.
	Musk scabious, Scabiosa atro-purpurea	July to October	Dark purple, pegged down.
LILAC.	Zinnia elegans	July to September.	
	Heath	End of July to frost	Dwarf.
	Lobelia pyramidalis	August and September.	
	Arabis	Early spring, February and April	It harbours slugs and snails.
	Feather hyacinth, Muscari monstrosum	April and May.	
	Candy-tuft, Iberis umbellata	Early spring, to Dec. and Jan.	(See White.)
	London, or evening primrose (primula)	April and May.	
	Omphalodes verna	April to frost	Succession.

COLOUR.	PLANT.	WHEN IN FLOWER.	REMARKS.
LILAC.	Verbena	May to December.	Not good for beds; but a low hedge made of it may be used for dividing some parts of a formal garden. General effect lilac, bearing pink and blue flowers.
	Primula sinensis (Chinese primrose)	June and summer.	
	Heliotrope	June to November.	
	*Lavender, Lavendula spica	June to October	
YELLOW.	Virginia stock	June to frost	Of different hues. Full of flower in March. Several kinds. Of various hues, yellow, red, &c. (See Red.) Not very good for beds.
	Leptosiphon lilacinum	August to frost.	
	Anemone japonica	End of August to frost.	
	Spring Crocus, C. vernus	February to April.	
	Daffodil, Narcissus Pseudo-narcissus	End of Feb. March and April.	Put out in flower. Clear canary colour.
	Wall-flower, Cheiranthus Cheiri	February and March to June	
	Alyssum saxatile	March to frost	
	Yellow Narcissus	March and May	
	Ranunculus, double	End of April to June	Some yellow, red, pink, and white; not very good for beds.
	*Cowslip, Primula verna	April and May to middle of June	
	Yellow tulip, Tulipa sylvestris	April to middle of June.	
	Leptosiphon luteum	April or May to frost.	
	Calceolaria corymbosa	Middle of May to November	Not very good for beds.
	Calceolaria amplexicaule	Idem.	
	Helianthemum	May to September.	
	*Potentilla	Idem.	
	Musk	May to frost.	Pegged down. If sown in March, put out in the first week of May in blossom.
	Linum flavum	May to October.	
	*Yellow asphodel, Asphodelus luteus	May to June	
	Marygold, Calendula officinalis	June to frost.	
	Tropæolum canariense	May and June to October	

COLOUR.	PLANT.	WHEN IN FLOWER.	REMARKS.
YELLOW.	<i>Mimulus luteus</i>	June to September.	Not a rich yellow.
	<i>Hieracium</i> , Yellow hawk-weed	June to frost	Dwarf.
	<i>Shortia Californica</i>	Summer and autumn	
	<i>Lastheria Californica</i>	Idem.	
	* <i>Mesembrianthemum</i>	June to October	Not very good for beds. More used on rock-work.
	<i>Oenothera biennis</i>	July to frost	Pegged down.
	<i>Lupinus nanus</i>	July to September.	
	<i>Xeranthemum</i>	July and August.	
	<i>Coreopsis Drummondii</i>	July to October	Sow in March for July. There are also red and other species.
	<i>Coreopsis tinctoria</i>	Idem.	Differs from the last in having a deep horse-chestnut-coloured centre.
	<i>Lilacinum luteum</i>	August to frost.	
	<i>Chrysanthemum coronarium</i>	October to frost	Also in other colours.
	Wall-flower, <i>Cheiranthus cheiri</i>	Feb. and March to end of May	Of different hues.
	<i>Crocus</i>	February to April	But it is better not to move the <i>Crocus</i> oftener than once in three years.
ORANGE.	<i>Cuphea stilosa</i>	End of May to frost	Orange and scarlet together.
	* <i>Echinocarpus Scaber</i>	June and autumn	Too tall for beds.
	<i>Calceolaria</i>	June to November.	
	<i>Erysimum perovskianum</i>	June and autumn.	
	<i>Marygold</i> , <i>Calendula officinalis</i>	June to frost.	
	<i>African Marygold</i> , <i>Tagetes erecta</i>	June to September	
	<i>Eschscholtzia Californica</i>	June to frost.	
	<i>Nasturtium common</i>	Idem.	Mixed chestnut-brown and yellow, or orange.
	<i>Nasturtium tropæolum</i>	Idem.	
	<i>Alstroemeria</i>	Middle of June to end of August	Pegged down. Plant it in pots; being difficult to get rid of, when it overruns beds.
WHITE.	<i>Snowdrop</i> , <i>Galanthus nivalis</i>	End of Jan. and Feb., and March.	For small beds.

COLOUR.	PLANT.	WHEN IN FLOWER.	REMARKS.
WHITE.	<i>Hepatica triloba</i>	February to May	Also blue and pink.
	<i>Scilla bifolia alba</i>	February to March	
	<i>Leptosiphon densiflora, var. corolla alba</i>	April or May to frost	
	<i>Alyssum, white</i>	March and frost	
	<i>White Narcissus</i>	March to May	Not good for beds; too straggling, and not suited for moving annually.
	* <i>Star of Bethlehem, Ornithogalum fimbriatum.</i>	May	Double white variety. (See Lilac.)
	<i>Anemone nemorosa</i>	April and May	
	<i>Candy tuft</i>	Early spring to winter	
	<i>Helianthemum</i>	May to September	
	<i>Rose</i>	May to winter	Pegged down.
	<i>Verbena</i>	Middle of May to frost	
	<i>Woodruffe, Asperula odorata</i>	May to August	
	<i>Petunia alba</i>	Middle of May to frost	
	<i>Campanula rotundifolia, Quaker bells</i>	June to August	
	<i>Campanula medium, Canterbury bells</i>	June and through August	
	<i>Lupinus nanus</i>	Middle of June to frost	
	<i>Gilia nivalis</i>	Summer and autumn	Succession; rather poor. A mixed colour, white veined with blue, or purple.
	<i>White rocket (double), Hesperis matronalis</i>	June and part of July	Lasts too short a time.
	<i>Aggeratum album</i>	Middle of June to frost	Not very good in colour; but blossoms freely, and lasts a long time.
	<i>Feverfew (double camomile)</i>	June to frost	
	<i>Matricaria, or Pyrethrum Parthenium; var. flore pleno.</i>	Idem	
	<i>Collinsia alba</i>	June and autumn	Succession.
	* <i>Spider-wort, Tradescantia virginica</i>	July till frost	Has rather too much leaf; but better than the blue, growing lower.
	<i>Xeranthemum Orientale</i>	July and August	(See Blue); not very full of flower.
	<i>Lobel's catchfly</i>	July till frost	Dwarf variety.
	<i>Phlox (white)</i>	Middle of July to October	

In the above list I have noticed some of the flowers best suited by their colours for the brilliant effect of geometrical patterns; but I have not thought it necessary to mention those adapted to borders, as they belong to a different part of the garden, and a different subject; and though many suited to beds are also grown in borders, many which are well adapted for borders are too large, or too deficient in masses of colour for the dressed beds.

I have not entered into this subject with a view to give all the necessary instructions respecting the laying out of gardens; this would require a more extensive notice than the few remarks here introduced; my intention has rather been to show how advantageously form and colour may be combined in formal beds, and how necessary is their proper combination for giving full effect to the geometrical patterns of a dressed garden.

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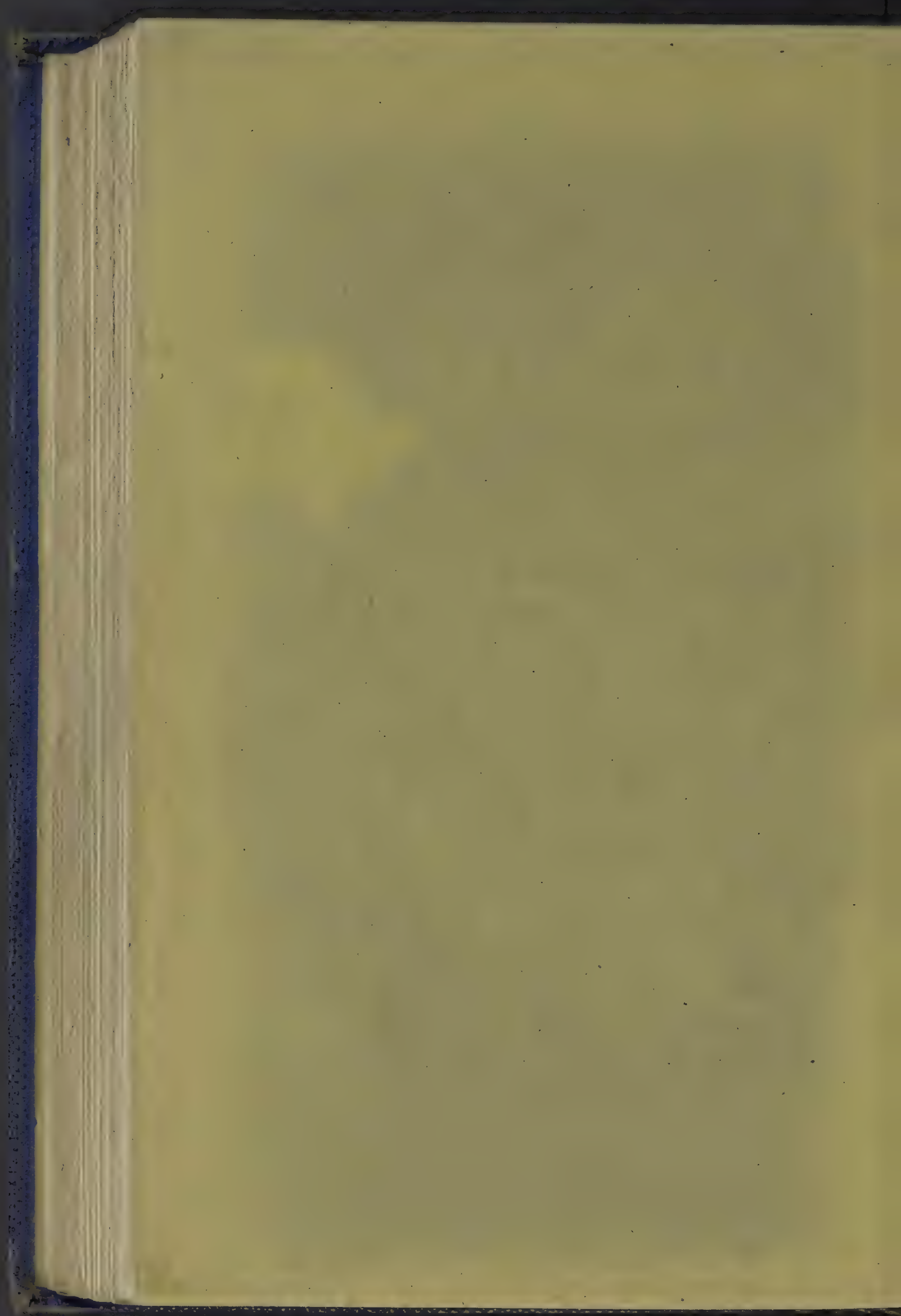
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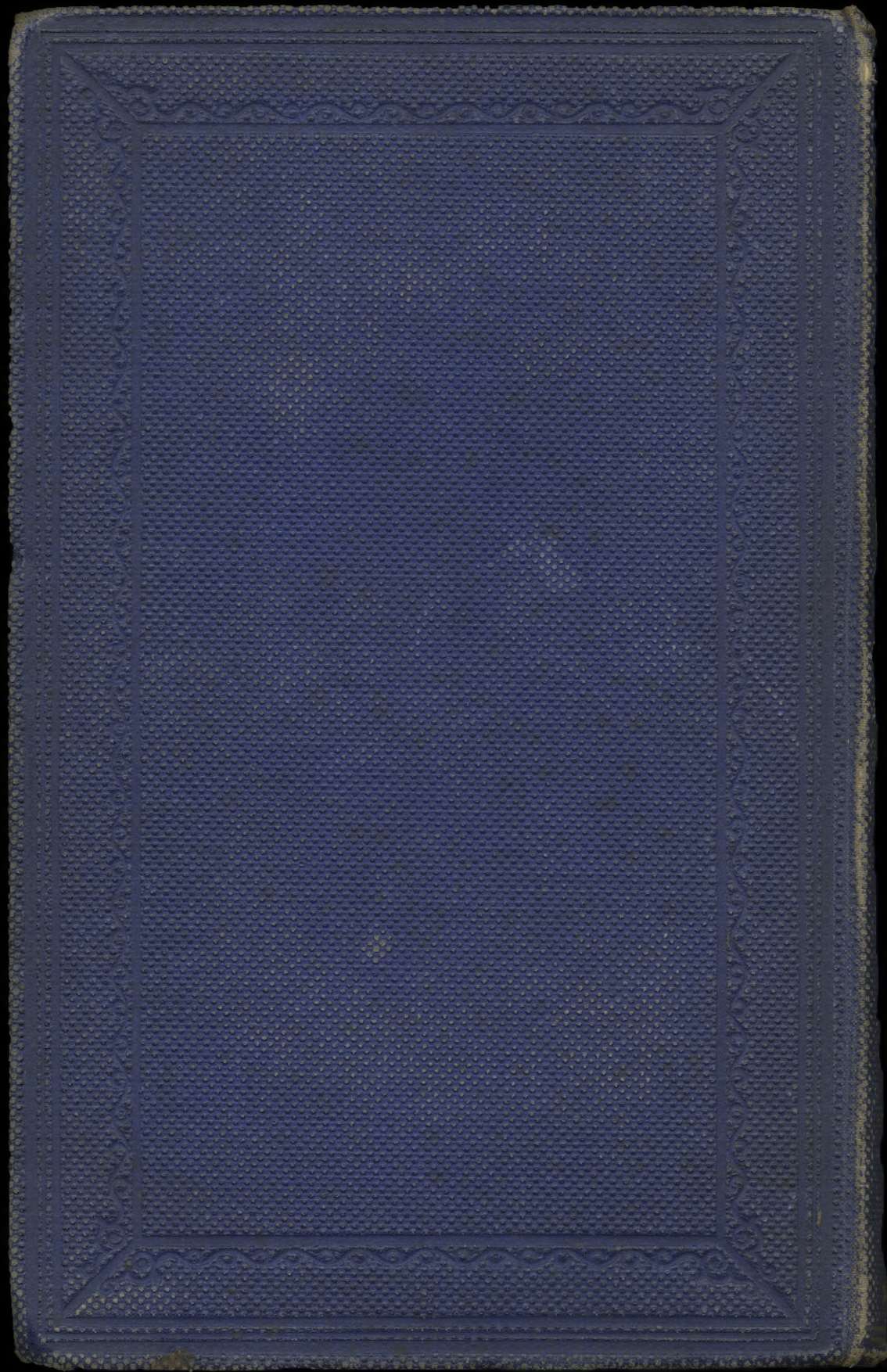


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